Search for 09/034,336 Pruitt / 10/670,525

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     FILE 'WPIDS, USPATFULL, BIOSIS' ENTERED AT 11:04:43 ON 11 MAR 1999
L1      1246320 S INHIBIT?
L2      3436253 S REDUC?
L3        97202 S ANTIOXID?
L4        97734 S DEHYDRAT?
L5         6471 S TREHALOSE
L6        35507 S L1 (3A) L2
L7          229 S L6 (7A) L3
L8            0 S L7 (L) L5
L9       177045 S SUGAR
L10           3 S L7 (P) L9
L11         977 L1 (7A) L4
L12          10 L11 (L) L5
L13          10 DUP REMOVE L12 (0 DUPLICATES REMOVED)

=> d kwic bib 1-3

L10  ANSWER 1 OF 3  USPATFULL
DETD   (1) Following the procedure   ***of***   Reference   ***Example***
       ***70B***  ,   ***there***    ***is***   obtained (  ***3R***  ,
       ***4R***  )-3-[2-(2-  ***chloroacetamidothiazol***  -  ***4***
       -yl)-2methoxyiminoacetamido]-  ***4***  -n-butylthio-2-oxoazetidine.
AN     89:30104  USPATFULL
TI     1-Sulfo-2-oxoazetidine derivatives and their production
IN     Ochiai, Michihiko, Suita, Japan
       Matsuo, Taisuke, Ibaraki, Japan
PA     Takeda Chemical Industries, Ltd., Osaka, Japan (non-U.S. corporation)
PI     US 4822790  19890418
AI     US 81-326939  19811203 (6)
DCD    20050913
PRAI   WO 80-JP296  19801205
       WO 81-JP102  19810430
       WO 81-JP192  19810825
DT     Utility
EXNAM  Primary Examiner: Berch, Mark L.
LREP   Wenderoth, Lind & Ponack
CLMN   Number of Claims: 13
ECL    Exemplary Claim: 1,12,13
DRWN   No Drawings
LN.CNT 18192
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10  ANSWER 2 OF 3  USPATFULL
DETD   (1) Following the procedure   ***of***   Reference   ***Example***
       ***70B***  ,   ***there***    ***is***   obtained (  ***3R***  ,
       ***4R***  )-3-[2-(2-  ***chloroacetamidothiazol***  -  ***4***
       -yl)-2methoxyiminoacetamido]-  ***4***  -n-butylthio-2-oxoazetidine.
AN     89:30102  USPATFULL
TI     1-sulfo-2-oxozetidine derivatives and their product ion
IN     Kishimoto, Shoji, Takarazuka, Japan
       Matsuo, Taisuke, Ibaraki, Japan
       Ochiai, Michihiko, Suita, Japan
PA     Takeda Chemical Industries, Ltd., Osaka, Japan (non-U.S. corporation)
PI     US 4822788  19890418
AI     US 81-326938  19811203 (6)
PRAI   WO 80-JP297  19801205
       WO 81-JP103  19810430
       WO 81-JP183  19810821
       WO 81-JP252  19810924
```

DT Utility
EXNAM Primary Examiner: Berch, Mark L.
LREP Wenderoth, Lind & Ponack
CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 18181
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 3 OF 3 USPATFULL
DETD NMR(DMSO-d.sub. ***6*** , ppm); ***1*** . ***10*** (***t*** , ***J*** =6 ***Hz*** , ***CH*** .sub.3), ##STR356## ***3*** . ***41*** (q,J= ***6*** Hz,--CH.sub.2 --), 3.56(m,--CH.sub.2 --), 3. ***90*** (m,--CH.sub.2 --), 4.64(d,J=4 Hz,C.sub.4 --H), 5.46(dd,J=4,8 Hz,C.sub.3 --H), ##STR357## 7.4(broad s,arom H), 9.06(d,J=8 Hz,NH), 9.18(broad s,NH), 9.93(d,J=6 Hz,NH).
AN 85:63880 USPATFULL
TI 1-Sulfo-2-oxoazetidine derivatives and their production
IN Matsuo, Taisuke, Ibaraki, Japan
Kishimoto, Shoji, Takarazuka, Japan
Ochiai, Michihiko, Suita, Japan
PA Takeda Chemical Industries, Ltd., Osaka, Japan (non-U.S. corporation)
PI US 4550105 19851029
AI US 81-326937 19811203 (6)
PRAI WO 80-JP297 19801205
WO 81-JP103 19810430
WO 81-JP183 19810821
WO 81-JP252 19810924
DT Utility
EXNAM Primary Examiner: Berch, Mark L.
LREP Wenderoth, Lind & Ponack
CLMN Number of Claims: 20
ECL Exemplary Claim: 1,5
DRWN No Drawings
LN.CNT 18339
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d kwic ab bib 1-10

L13 ANSWER 1 OF 10 USPATFULL
SUMM . . . sorbitol and sucrose. Also included are other saccharides such as: adonitol, arabinose, dulcitol, galactose, inositol, maltose, mannitol, raffinose, roamnose, and ***trehalose*** The concentration range of the sugar or related compound can preferably be from about 0.1% to about 4%, and most. . . the concentration of the sugar or other related compound can be the concentration at which osmotic pressure would start to ***inhibit*** bacterial growth (osmotic pressure would ***dehydrate*** the bacterium). This concentration is likely to be variable dependent on the organism. Most bacteria are inhibited at solution concentrations. . .
AB The present invention relates to a method for correcting false susceptibility results in antimicrobial susceptibility tests for resistant microorganisms. This method comprises adding specific amounts of sugars, carbohydrates, related compounds or other ingredients to a test medium for such susceptibility tests.
AN 1999:12765 USPATFULL
TI Addition of lactose or other sugars in correcting false susceptibility results for resistant microorganisms in antimicrobial susceptibility

tests
IN Hejna, John M., Reisterstown, MD, United States
Karr, Gertrude M., Baltimore, MD, United States
Holliday, Denise R., Laurel, MD, United States
Brasso, William B., Columbia, MD, United States
Hammond, Patricia, Parkton, MD, United States
PA Becton Dickinson and Company, Franklin Lakes, NJ, United States (U.S. corporation)
PI US 5863751 19990126
AI US 96-724487 19960930 (8)
DT Utility
EXNAM Primary Examiner: Gitomer, Ralph
LREP Weintraub, Bruce S.
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 264
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 2 OF 10 USPATFULL
DETD A cryoprotectant or anticoalescent compound may be added to the emulsion
prior to ***dehydration*** to ***inhibit*** flocculation and coalescence upon rehydration. The cryoprotectant may be of any type known in the art, including sugars and polysaccharides such as sucrose or ***trehalose*** , and nonnatural polymers such as polyvinylpyrrolidone. Cryoprotectants are usually present at less than 25%, commonly 10%, more commonly 5%, 4%. . .
AB The invention relates to an oil-in-water emulsion and related method for
administration of a drug to a mucosal surface. The emulsion has an aqueous continuous phase and a plurality of submicron particles having an average particle diameter of from 10 nm to 600 nm, with the particles
having a hydrophobic core of a fat or oil which is surrounded by a surfactant layer. The emulsion further includes a drug and a mucoadhesive polymer which is a polymer or copolymer of acrylic acid or methacrylic acid, a poly(methyl vinyl ether/maleic anhydride) copolymer,
pectin, alginic acid, hyaluronic acid, chitosan, gum tragacanth, karaya gum or carboxymethylcellulose. The hydrophobic core has less than 1% (w/w) protein, relative to the weight of the hydrophobic core, and the emulsion contains less than 5% (w/w) surfactant, relative to the weight of the hydrophobic core.
AN 1998:44900 USPATFULL
TI Bioadhesive emulsion preparations for enhanced drug delivery
IN Friedman, Doron, 33 Alon, Carmei Yosef, Israel
Schwartz, Joseph, 40 Benjamin Street, Rehovot, Israel
Amselem, Shimon, 38 Benjamin, Rehovot, Israel
PI US 5744155 19980428
AI US 93-106262 19930813 (8)
DT Utility
EXNAM Primary Examiner: Bawa, Raj
CLMN Number of Claims: 42
ECL Exemplary Claim: 1
DRWN 9 Drawing Figure(s); 7 Drawing Page(s)
LN.CNT 1270
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 3 OF 10 USPATFULL
DETD A cryoprotectant or anticoalescent compound may be added to the

emulsion
prior to ***dehydration*** to ***inhibit*** flocculation and coalescence upon rehydration. The cryoprotectant may be of any type known in the art, including sugars and polysaccharides such as sucrose or ***trehalose*** , and nonnatural polymers such as polyvinylpyrrolidone. Cryoprotectants are usually present at less than 25%, commonly 10%, more commonly 5%, 4%. . .

AB The present invention provides emulsions comprising a plurality of submicron particles, a bioactive peptide, and an aqueous continuous phase or that effect enhanced oral bioavailability of the peptide. Another aspect of the invention provides compositions and methods of administering peptides in an emulsion comprising a plurality of submicron particles, a mucoadhesive macromolecule, a bioactive peptide, and an aqueous continuous phase, which promotes absorption of the bioactive peptide through mucosal surfaces by achieving mucoadhesion of the emulsion particles. Mucous surfaces suitable for application of the emulsions of the present invention may include corneal, conjunctival, buccal, sublingual, nasal, vaginal, pulmonary, stomachic, intestinal, and rectal routes of administration.

AN 96:38893 USPATFULL
TI Submicron emulsions for delivery of peptides
IN Friedman, Doron, Carmei Yosef, Israel
Schwarz, Joseph, Rehovot, Israel
Amselem, Shimon, Rehovot, Israel
PA Pharmos Corporation, New York, NY, United States (U.S. corporation)
PI US 5514670 19960507
AI US 93-106107 19930813 (8)
DT Utility
EXNAM Primary Examiner: Warden, Jill; Assistant Examiner: Prickril, Benet
LREP Pennie & Edmonds
CLMN Number of Claims: 39
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 869
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 4 OF 10 BIOSIS COPYRIGHT 1999 BIOSIS

AB Arbutin is a glycosylated hydroquinone found at high concentrations in certain plants capable of surviving extreme and sustained dehydration. In this paper, we examine a potential role of this molecule in anhydrobiosis.
We have studied its effects on the physical properties of phospholipids and on preservation of liposomes during drying. Arbutin depresses the get to liquid crystalline phase transition temperature of dry phospholipids, as measured by differential scanning calorimetry, with a pattern similar to that seen in phospholipids dried with the disaccharide ***trehalose*** . Unlike ***trehalose*** , however, arbutin does not protect dry liposomes from leaking their contents. Also, using Fourier transform infrared spectroscopy, we found an increase in the vibrational frequency of the phosphate asymmetric stretch in partially hydrated phospholipids in the presence of arbutin. ***Trehalose*** , by contrast, depresses the frequency of the phosphate in dry phospholipids, indicating that the modes of interaction of ***trehalose*** and arbutin with the bilayer are different. Previously, we have shown that phospholipases can be active in liposomes with surprisingly low water contents. Based on the structural similarity of arbutin to a known inhibitor of phospholipase A-2 (PLA-2), it appeared possible that arbutin might serve as an inhibitor of phospholipases. Liposomes of varying composition were lyophilized in the presence and absence of phospholipases. When the liposomes were partially rehydrated at 76%

relative humidity, arbutin inhibited PLA-2, but did not inhibit phospholipases B or C. Accumulation of enzyme product in the liposome membranes was measured by analytical thin layer chromatography, and was taken as a measure of enzyme activity. Arbutin did not inhibit any of the enzymes in the presence of excess water. Based on these data, hypotheses are presented concerning the mechanism of PLA-2 ***inhibition*** by arbutin in the mostly ***dehydrated*** state.

AN 1996:419395 BIOSIS
DN PREV199699141751
TI Arbutin inhibits PLA-2 in partially hydrated model systems.
AU Oliver, Ann E. (1); Crowe, Lois M.; De Araujo, Pedro S.; Fisk, Erika; Crowe, John H.
CS (1) Sect. Mol. Cell. Biol., Storer Hall, Univ. California, Davis, CA 95616
USA
SO Biochimica et Biophysica Acta, (1996) Vol. 1302, No. 1, pp. 69-78. ISSN: 0006-3002.
DT Article
LA English

L13 ANSWER 5 OF 10 USPATFULL
SUMM . . . and Vigneron, C., "Circular Dichroism Studies of Freeze-dried Induced Conformational Changes in Human Hemoglobin," Biopolymers, 22, 2367-2381, (1983)). The disaccharide ***trehalose*** has been shown in this work to be equally effective in retaining the functional oxygen binding characteristics of Hb as. . .
SUMM The ability of carbohydrates to maintain cell size during lyophilization
is correlated to the ability of carbohydrates to ***inhibit*** ***dehydration*** . Previous work has demonstrated that ***trehalose*** , sucrose, and glucose (to a lesser degree) ***inhibit*** . ***dehydration*** . This action may be due to the binding of carbohydrates to a cell wall or to a liposome (Crowe, L. M., Crowe, J. H., Rudolph, A. S., Womersley, C., and Appel, L., "Preservation of Freeze-dried Liposomes by ***Trehalose*** ," Arch. Biochem. Biophys., 242:1, 240-247, (I985); Crowe, J. H., and Crowe, L. M., "Effects of Dehydration on Membranes and Membrane. . .
SUMM . . . al., in U.S. Pat. No.4,915,951, provides a summary of articles and patents relating to the discovery of and development of ***trehalose*** as a cryopreservation agent. Baldschwieler et al. discloses a lipophilic anchor molecule to assist in introducing a carbohydrate to the. . .
AB The invention is directed to a composition comprising a permeabilizing agent, a preserving agent, and a buffered solvent. This composition is used to prepare the cells for lyophilization cells and to rehydrate the cells to recover them from lyophilization.

The process of this invention comprises adding the permeabilizing agent and the preserving agent in a buffered solution to red blood cells, agitating the combination for a period of time sufficient to allow permeation of the preserving agent into the cell, shell freezing the mixture, and lyophilizing the mixture. The dry lyophilized material can then be stored. The cells can be rehydrated using the same composition of permeability agent, preserving agent and buffered solvent.

AN 93:74174 USPATFULL
TI Method for the preservation of red blood cells by lyophilization using glycerol or inositol with disaccharides
IN Rudolph, Alan S., Bowie, MD, United States
Larry, Joseph P., South Bend, IN, United States
PA The United States of America as represented by the Secretary of the Navy, Washington, DC, United States (U.S. government)

PI US 5242792 19930907
AI US 91-659765 19910225 (7)
DT Utility
EXNAM Primary Examiner: Robinson, Douglas W.; Assistant Examiner: Saucier, S.
LREP McDonnell, Thomas E.; Edelberg, Barry A.
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 358
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 6 OF 10 USPATFULL
SUMM . . . ten years ago that certain organisms capable of surviving in a dehydrated state for many years produced large amounts of ***trehalose*** , a non-reducing disaccharide of glucose (Madin, K. A. C., and Crowe, J. H., Journal of Experimental Zoology, 193, 335-342 (1975), and Loomis, S. H., O'Dell, S. J., and Crowe, J. H., Journal of Experimental Zoology, 211, 321-330 (1980)). ***Trehalose*** was subsequently shown to be three times more effective than sucrose and several more times effective than other cryoprotectants in. . .
SUMM . . . phosphoglyceride molecules and thus to decrease the Van der Waals interactions among the acyl chains. During conditions of freezing and/or ***dehydration*** , this effect would tend to ***inhibit***

the processes of phase transition and phase separation which produce membrane fusion and cellular damage.
AB Compositions for cryopreservation of phosphoglyceride-containing biological and synthetic membranes are provided in which a lipophilic anchor molecule is modified by the attachment of a preferably carbohydrate moiety placed at a predetermined, variable distance from the hydrophobic portion of the molecule by means of a hydrophilic linker

unit. A method for the use of the compositions is also provided.
AN 91:100114 USPATFULL
TI Cryoprotective reagent
IN Baldeschwieler, John D., Pasadena, CA, United States
Goodrich, Jr., Raymond P., Pasadena, CA, United States
PA California Institute of Technology, Pasadena, CA, United States (U.S. corporation)
PI US 5071598 19911210
AI US 89-448803 19891211 (7)
DCD 20070410
RLI Division of Ser. No. US 87-128152, filed on 3 Dec 1987, now patented, Pat. No. US 4915951
DT Utility
EXNAM Primary Examiner: Lovering, Richard D.; Assistant Examiner: Covert, John

M.
LREP Sarjeant, John A.
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 336
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 7 OF 10 USPATFULL
SUMM . . . ten years ago that certain organisms capable of surviving in a dehydrated state for many years produced large amounts of ***trehalose*** , a non-reducing disaccharide of glucose (Madin, K. A. C., and Crowe, J. H., Journal of Experimental Zoology, 193, 335-342 (1975), and Loomis, S. H., O'Dell, S. J., and Crowe, J. H., Journal of

Experimental Zoology, 211, 321-330 (1980)). ***Trehalose*** was subsequently shown to be three times more effective than sucrose and several more times effective than other cryoprotectants in. . .

SUMM . . . phosphoglyceride molecules and thus to decrease the Van der Waals interactions among the acyl chains. During conditions of freezing and/or ***dehydration*** , this effect would tend to ***inhibit*** the processes of phase transition and phase separation which produce membrane fusion and cellular damage.

AB Compositions for cryopreservation of phosphoglyceride-containing biological and synthetic membranes are provided in which a lipophilic anchor molecule is modified by the attachment of a preferably carbohydrate moiety placed at a predetermined, variable distance from the hydrophobic portion of the molecule by means of a hydrophilic linker unit. A method for the use of the compositions is also provided.

AN 90:27763 USPATFULL
TI Cryoprotective reagent
IN Baldeschwieler, John D., Pasadena, CA, United States
Goodrich, Jr., Raymond P., Pasadena, CA, United States
PA California Institute of Technology, Pasadena, CA, United States (U.S. corporation)
PI US 4915951 19900410
AI US 87-128152 19871203 (7)
DT Utility
EXNAM Primary Examiner: Lee, Mary C.; Assistant Examiner: Scalzo, Catherine S.
Kilby
LREP Ashen Golant Martin & Seldon
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 310
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 8 OF 10 BIOSIS COPYRIGHT 1999 BIOSIS
AB We have investigated the role that stabilization of proteins in solution by organic solutes plays in stabilizing labile enzymes during air-drying. Phosphofructokinase (PFK) was dehydrated to various water contents and rehydrated, and the resulting enzyme activity was then measured. When 60% of the water was removed, 30% of the initial enzyme activity was lost. This loss in activity was clearly due to changes in solution properties during dehydration, since it occurred in excess water. No activity was measurable following dehydration to only 3% of the initial water content. This final loss in activity was attributed to dehydration of the protein. Inactivation at any stage of air-drying was irreversible. In the presence of 100 mM ***trehalose*** , by contrast, there was no loss of enzyme activity induced at any stage of the progressive desiccation. Similar results were seen with 100 mM sucrose or maltose or with 200 mM glucose, but the degree of protection was less. Addition of 0.6 mM $ZnSO_4$ to glucose/PFK solutions enhanced the protection provided by the sugar. Glycerol, proline, and trimethylamine N-oxide protected PFK until up to 90% of the initial water was removed, but not against complete ***dehydration*** . Sugars and the other organic solutes ***inhibited*** pH-induced dissociation of PFK, indicating that these solutes have a more generalized capacity to stabilize this protein in solution. We conclude that the capacity of sugars to stabilize labile enzymes in solution is a prerequisite for the maintenance of catalytic activity when water is removed by air-drying, but that this effect is not in itself sufficient to stabilize fully dried proteins. We suggest that the capacity of sugars to preserve dried PFK may be dependent on the

binding of the sugar to the protein during the final stages of dehydration.
AN 1989:34054 BIOSIS
DN BA87:22054
TI MODES OF STABILIZATION OF A PROTEIN BY ORGANIC SOLUTES DURING DESICCATION.
AU CARPENTER J F; CROWE J H
CS DEP. ZOOL., UNIV. CALIF., DAVIS, CALIF. 95616.
SO CRYOBIOLOGY, (1988) 25 (5), 459-470.
CODEN: CRYBAS. ISSN: 0011-2240.
FS BA; OLD
LA English

L13 ANSWER 9 OF 10 BIOSIS COPYRIGHT 1999 BIOSIS
AB In this report, the ability of carbohydrates (***trehalose*** , sucrose, and glucose) to preserve the blood substitute liposome-encapsulated hemoglobin (LEH) in the freeze-dried state is examined. The water-free stabilization of individual components of this blood substitute and LEH is reported. Lyophilization of hemoglobin solutions in the absence of carbohydrates results in significant oxidative degradation of Hb as measured by a large increase (approximately 60%) in methemoglobin. Hb samples lyophilized in increasing carbohydrate concentrations show reduced levels of methemoglobin, and at 0.5 M ***trehalose*** , sucrose, or glucose, these levels are reduced to nearly the same levels as unlyophilized controls. Storage of lyophilized Hb samples following rehydration at 4.degree. C shows the same rate of methemoglobin formation regardless of whether carbohydrates are present. This suggests that carbohydrates prevent Hb oxidation in the dry state but are less effective at retarding oxidative damage to Hb in solution. The addition of 0.25 M ***trehalose*** or sucrose to LEH results in the maintenance of liposomal size following lyophilization. In these experiments, glucose was least effective at ***inhibiting*** ***dehydration*** -induced LEH fusion. Lyophilization of LEH in 0.25 M ***trehalose*** or sucrose also results in significantly greater retention of the encapsulated hemoglobin following lyophilization and rehydration. These results suggest that the long-term stabilization of LEH in the dry state is a realizable goal.
AN 1988:435980 BIOSIS
DN BA86:88078
TI THE FREEZE-DRIED PRESERVATION OF LIPOSOME ENCAPSULATED HEMOGLOBIN A POTENTIAL BLOOD SUBSTITUTE.
AU RUDOLPH A S
CS BIOMOL. ENGINEERING BRANCH, CODE 6190, NAVAL RES. LAB., WASHINGTON, DC 20375-5000.
SO CRYOBIOLOGY, (1988) 25 (4), 277-284.
CODEN: CRYBAS. ISSN: 0011-2240.
FS BA; OLD
LA English

L13 ANSWER 10 OF 10 BIOSIS COPYRIGHT 1999 BIOSIS
AB The relative abilities of a number of naturally occurring carbohydrates to ***inhibit*** ***dehydration*** -induced fusion between palmitoyloleoylphosphatidylcholine:phosphatidylserine (85:15) large unilamellar vesicles have been studied. Fusion events were quantified using a fluorescence resonance energy transfer technique. ***Trehalose*** was most effective at inhibiting fusion (0.4 g/

trehalose /g lipid showed 30% probe intermixing), followed by maltose (60% intermixing), fructose (60%), sucrose (70%), glucose (80%), cellobiose, glycerol, raffinose, and myo-inositol (90%). The relative abilities of these carbohydrates to inhibit fusion correlate directly with their abilities to interact with phospholipids, maintain bilayer fluidity, and preserve biological membranes. The results are discussed in relation to the crystalline structure of the carbohydrates and their possible influence on level of interaction with phosphate head groups.

AN 1986:355731 BIOSIS
DN BA82:60205
TI INHIBITION OF DEHYDRATION-INDUCED FUSION BETWEEN LIPOSOMAL MEMBRANES BY CARBOHYDRATES AS MEASURED BY FLUORESCENCE ENERGY TRANSFER.
AU WOMERSLEY C; USTER P S; RUDOLPH A S; CROWE J H
CS DEP. ZOOL., UNIV. HAWAII, HONOLULU, HAWAII 96822.
SO CRYOBIOLOGY, (1986) 23 (3), 245-255.
CODEN: CRYBAS. ISSN: 0011-2240.
FS BA; OLD
LA English

STN INTERNATIONAL LOGOFF AT 11:15:49 ON 11 MAR 1999

=> fil reg

FILE 'REGISTRY' ENTERED AT 13:12:29 ON 08 FEB 1999

STRUCTURE FILE UPDATES: 6 FEB 99 HIGHEST RN 219473-81-1
DICTIONARY FILE UPDATES: 7 FEB 99 HIGHEST RN 219473-81-1

TSCA INFORMATION NOW CURRENT THROUGH JUNE 29, 1998

Please note that search-term pricing does apply when conducting SmartSELECT searches.

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L75 ANSWER 1 OF 5 REGISTRY COPYRIGHT 1999 ACS
RN 12619-70-4 REGISTRY
CN Cyclodextrin (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Celdex
CN Celdex CH 20
CN Celdex CH 30
CN Cycloamylose
CN Rhodocap L 20
CN Ringdex P
DR 100091-36-9
MF Unspecified
CI COM, MAN
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT,
CEN, CHEMCATS, CHEMLIST, CBNB, CIN, CSCHEM, DDFU, DRUGU, EMBASE, IFICDB,
IFIPAT, IFIUDB, IPA, NAPRALERT, PIRA, PROMT, TOXLINE, TOXLIT, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
2478 REFERENCES IN FILE CA (1967 TO DATE)
808 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2481 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 130:89853

REFERENCE 2: 130:86181

REFERENCE 3: 130:86005

REFERENCE 4: 130:85982

REFERENCE 5: 130:85914

REFERENCE 6: 130:85645

REFERENCE 7: 130:80699

REFERENCE 8: 130:77956

REFERENCE 9: 130:75518

REFERENCE 10: 130:71594

L75 ANSWER 2 OF 5 REGISTRY COPYRIGHT 1999 ACS
RN 9057-02-7 REGISTRY
CN Pullulan (9CI) (CA INDEX NAME)
OTHER NAMES:
CN P 10
CN P 10 (carbohydrate)
CN P 100
CN P 100 (carbohydrate)
CN P 20
CN P 20 (carbohydrate)
CN P 800
CN P 800 (carbohydrate)
CN PF 20
CN PF 20 (carbohydrate)
CN PF 30
CN PF 7
CN PI 20
CN Pullulan PF 10
DR 58252-16-7, 58391-35-8, 152743-43-6
MF Unspecified
CI PMS, COM, MAN
PCT Manual registration, Polyother, Polyother only
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CBNB, CIN, CSCHEM, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, NAPRALERT, PIRA, PROMT, RTECS*, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
1475 REFERENCES IN FILE CA (1967 TO DATE)
196 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1478 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 130:84057

REFERENCE 2: 130:80404

REFERENCE 3: 130:65316

REFERENCE 4: 130:53042

REFERENCE 5: 130:43370

REFERENCE 6: 130:39151

REFERENCE 7: 130:26299

REFERENCE 8: 130:24361

REFERENCE 9: 130:7272

REFERENCE 10: 130:4084

L75 ANSWER 3 OF 5 REGISTRY COPYRIGHT 1999 ACS
RN 9054-89-1 REGISTRY
CN Dismutase, superoxide (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Dismuzyme Plus
CN E.C. 1.15.1.1
CN Ontosein
CN Orgotein
CN Orgoteins
CN Ormetein
CN Ormeteins
CN Palosein
CN Peroxinorm
CN Proteins, orgoteins
CN Superoxide dismutase
CN Superphycodismutase
DR 9016-01-7
MF Unspecified
CI COM, MAN
LC STN Files: ADISINSIGHT, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAPLUS, CEN, CHEMCATS, CHEMLIST, CBNB, CIN, CSCHEM, DDFU, DRUGNL, DRUGU, DRUGUPDATES, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PHAR, PROMT, RTECS*, TOXLINE, TOXLIT, USAN, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
15288 REFERENCES IN FILE CA (1967 TO DATE)
490 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
15299 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 130:86633

REFERENCE 2: 130:86099

REFERENCE 3: 130:80755

REFERENCE 4: 130:80753

REFERENCE 5: 130:80485

REFERENCE 6: 130:80342

REFERENCE 7: 130:79845

REFERENCE 8: 130:79780

REFERENCE 9: 130:79709

REFERENCE 10: 130:79662

L75 ANSWER 4 OF 5 REGISTRY COPYRIGHT 1999 ACS
RN 7782-44-7 REGISTRY
CN Oxygen (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:
CN Dioxygen
CN Molecular oxygen
CN Oxygen molecule
FS 3D CONCORD
DR 1338-93-8, 14797-70-7, 80217-98-7, 80937-33-3
MF O2
CI COM
LC STN Files: AGRICOLA, AIDSLINE, ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CBNB, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, DDFU, DIPPR*, DRUGU, EMBASE, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, TRCTHERMO*, TULSA, ULIDAT, USAN, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

O=O

224944 REFERENCES IN FILE CA (1967 TO DATE)
15638 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
225076 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 130:89853

REFERENCE 2: 130:89782

REFERENCE 3: 130:89754

REFERENCE 4: 130:89735

REFERENCE 5: 130:89709

REFERENCE 6: 130:89680

REFERENCE 7: 130:89676

REFERENCE 8: 130:89544

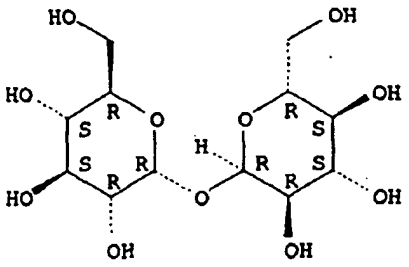
REFERENCE 9: 130:89476

REFERENCE 10: 130:89413

L75 ANSWER 5 OF 5 REGISTRY COPYRIGHT 1999 ACS
RN 99-20-7 REGISTRY
CN .alpha.-D-Glucopyranoside, .alpha.-D-glucopyranosyl (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Trehalose (8CI)
OTHER NAMES:
CN .alpha.,.alpha.'-D-Trehalose
CN .alpha.,.alpha.-Trehalose
CN .alpha.-D-Trehalose
CN .alpha.-Trehalose

CN D-(+)-Trehalose
CN D-Trehalose
CN Ergot sugar
CN Mycose
CN Natural trehalose
CN Trehaose
FS STEREOSEARCH
MF C12 H22 O11
CI COM
LC STN Files: AGRICOLA, AIDSLINE, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST,
CBNB, CIN, CSCHEM, DETHERM*, DDFU, DRUGU, EMBASE, GMELIN*, HODOC*, IPA,
MEDLINE, MRCK*, NAPRALERT, PIRA, PROMT, SPECINFO, TOXLINE, TOXLIT,
TULSA, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry. Rotation (+).



3539 REFERENCES IN FILE CA (1967 TO DATE)
217 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3545 REFERENCES IN FILE CAPLUS (1967 TO DATE)
64 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 130:83085

REFERENCE 2: 130:82332

REFERENCE 3: 130:82331

REFERENCE 4: 130:78933

REFERENCE 5: 130:78560

REFERENCE 6: 130:77796

REFERENCE 7: 130:77697

REFERENCE 8: 130:77633

REFERENCE 9: 130:71557

REFERENCE 10: 130:71556

=> d his 14-

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     (FILE 'HCAPLUS' ENTERED AT 12:47:35 ON 08 FEB 1999)
                E AGA H/AU
L4           14 S E3,E4
                E SHIBUYA T/AU
L5          167 S E3,E4,E18
                E FUKUDA S/AU
L6          189 S E3-E6,E42
                E MIYAKE T/AU
L7          272 S E3,E85

     FILE 'REGISTRY' ENTERED AT 12:52:02 ON 08 FEB 1999
L8            1 S 99-20-7
                E C12H22011/MF
L9          668 S E3
L10         380 S L9 AND GLUCO?
L11         229 S L10 NOT (GALACT? OR MANNO?)
L12         164 S L11 NOT FRUCTO?
L13         137 S L12 NOT (11C# OR 13C# OR 14C# OR C11# OR C13# OR C14# OR 180#
L14         131 S L13 NOT ALTRO?
L15          76 S L14 AND ALPHA
L16          54 S L15 NOT BETA
L17          52 S L16 NOT ESTER
L18          51 S L17 NOT XYLITOL
L19          15 S L18 NOT (2 OR 3 OR 4 OR 6)
L20          12 S L19 NOT OC4/ES
L21          10 S L20 NOT C6/ES
L22           9 S L21 NOT PSICOSE
L23           7 S L22 NOT SORBOSE
L24           5 S L23 NOT (5 OR TAGATOSE)
L25           4 S L24 NOT ALLO?
L26           4 S L8,L25
                E PULLULAN/CN
L27           1 S E3
                E CYCLODEXTRIN/CN
L28           1 S E3
                SEL RN L26
L29          75 S E1-E4/CRN
                SEL RN L27
L30         132 S E5/CRN
L31           0 S L29 AND L30
                SEL RN L28
L32         160 S E6/CRN
L33           0 S L29 AND L32
L34           0 S L29 AND ?CYCLODEXTRIN?/CNS

     FILE 'HCAPLUS' ENTERED AT 12:59:25 ON 08 FEB 1999
L35        5216 S L26 OR TREHALOSE
L36          43 S L4-L7 AND L35
L37        2902 S L27 OR PULLULAN
L38       15808 S L28 OR CYCLODEXTRIN
L39          28 S DEXTRIN (L) CYCLO
L40          67 S DEXTRIN (L) CYCLIC
L41          38 S L35 AND L37
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L42          86 S L35 AND L38-L40
L43           4 S L41 AND L42
L44         341 S L26 (L) (FFD/RL OR THU/RL)
L45           7 S L37 AND L44
L46          25 S L38-L40 AND L44

     FILE 'REGISTRY' ENTERED AT 13:03:05 ON 08 FEB 1999
L47           1 S 7782-44-7

     FILE 'HCAPLUS' ENTERED AT 13:03:07 ON 08 FEB 1999
L48      225137 S L47
L49           8 S L44 AND L48
L50           4 S L45,L46 AND L49
L51          34 S L35 AND L48
L52          23 S L35 AND ANTIOXID?
L53          54 S L51,L52
L54          23 S L53 AND (1 OR 62 OR 63 OR 17 OR 18)/SC,SX
L55           4 S L54 AND FFD/RL
L56           1 S L54 AND EDIBL?
L57           0 S L54 AND CONSUM?
L58           1 S L55,L56
L59           2 S L36 AND L53
L60           4 S L58,L59

     FILE 'REGISTRY' ENTERED AT 13:07:09 ON 08 FEB 1999
L61           1 S 9054-89-1

     FILE 'HCAPLUS' ENTERED AT 13:07:13 ON 08 FEB 1999
L62       15319 S L61
L63       21564 S SUPEROXIDE DISMUTASE
L64          17 S L62,L63 AND L35
L65           6 S L64 AND L53
L66           5 S L44 AND L64,L65
L67           6 S L54 AND L64,L65
L68           8 S L60,L65-L67
L69           1 S L68 AND 9/SC
L70           7 S L68 NOT L69
L71          17 S L41,L42,L44,L53 AND VEGETABLE
L72           2 S L71 AND ANTIOXID?
L73           1 S L71 AND L48
L74           7 S L70,L72,L73
                SEL HIT RN

     FILE 'REGISTRY' ENTERED AT 13:12:14 ON 08 FEB 1999
L75           5 S E7-E11

     FILE 'REGISTRY' ENTERED AT 13:12:29 ON 08 FEB 1999

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 13:13:05 ON 08 FEB 1999
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26, 1996), unless otherwise indicated in the original publications.

FILE COVERS 1967 - 8 Feb 1999 VOL 130 ISS 7
FILE LAST UPDATED: 8 Feb 1999 (19990208/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d all tot 174

L74 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 1999 ACS
AN 1998:766507 HCAPLUS
DN 130:29221
TI Preparation of solid porous matrixes for pharmaceutical uses
IN Unger, Evan C.
PA Imarx Pharmaceutical Corp., USA
SO PCT Int. Appl., 139 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K009-10
CC 63-6 (Pharmaceuticals)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9851282	A1	19981119	WO 98-US9570	19980512
	W: AU, BR, CA, CN, JP, KR, NZ				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI	US 97-46379		19970513		

AB A solid porous matrix formed from a surfactant, a solvent, and a bioactive agent is described. Thus, amphotericin nanoparticles were prepd. by using ZrO2 beads and a surfactant. The mixt. was milled for 24 h.
ST solid porous matrix pharmaceutical surfactant
IT Receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(GPIIBIIIa; prepn. of solid porous matrixes for pharmaceutical uses)
IT Macrophage
(activation factor; prepn. of solid porous matrixes for pharmaceutical uses)
IT Steroids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(acyl; prepn. of solid porous matrixes for pharmaceutical uses)
IT Ethers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diethers; prepn. of solid porous matrixes for pharmaceutical uses)
IT Natural products (pharmaceutical)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(digitalis; prepn. of solid porous matrixes for pharmaceutical uses)
IT Polyesters, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dilactone-based; prepn. of solid porous matrixes for pharmaceutical uses)
IT Polyoxyalkylenes, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ethers; prepn. of solid porous matrixes for pharmaceutical uses)
IT Polyesters, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lactic acid-based; prepn. of solid porous matrixes for pharmaceutical uses)
IT Ethers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methoxyl; prepn. of solid porous matrixes for pharmaceutical uses)
IT Natural products (pharmaceutical)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(opium; prepn. of solid porous matrixes for pharmaceutical uses)
IT Perfluoro compounds
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(perfluoroalkyl ethers; prepn. of solid porous matrixes for pharmaceutical uses)
IT Ethers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(perfluoroalkyl; prepn. of solid porous matrixes for pharmaceutical uses)
IT Polyethers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(poly(ortho esters); prepn. of solid porous matrixes for pharmaceutical uses)
IT Allergy inhibitors
Anesthetics
Angiotensin-converting enzyme inhibitors
Anti-inflammatory drugs
Antianginal agents
Antibiotics
Anticoagulants
Antirheumatic drugs
Antitumor agents
Antiviral agents
Blood products
Coryneform bacteria
Diabetic retinopathy
Drug delivery systems
Fungicides
Hypnotics and Sedatives
Microparticles (drug delivery systems)
Mycobacterium
Nanoparticles (drug delivery systems)
Narcotics
Neuromuscular blocking agents
Nonionic surfactants
Preservatives
Protozoacides
Tuberculostatics
.beta.-Lactam antibiotics
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Ligands
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Albumins, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Alkylbenzyldimethylammonium chlorides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prepn. of solid porous matrixes for pharmaceutical uses)
IT Antiestrogens
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Canola oil
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Carbohydrates, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Collagens, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Corn oil
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Crown ethers
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Cyclic ethers
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Elastins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Endotoxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Enkephalins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Enzymes, biological studies
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(prepn. of solid porous matrixes for pharmaceutical uses)
IT Fibrins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Glycosides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Hormones (animal), biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT IgA
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT IgG
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IT IgM
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(prepn. of solid porous matrixes for pharmaceutical uses)
IT Integrins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Interferon .alpha.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Interferon .alpha.2a

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Interferon .alpha.2b
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Interferon .beta.
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(prepn. of solid porous matrixes for pharmaceutical uses)
IT Interferon .gamma.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Interferons
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Interleukin 1
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Interleukin 10
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
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IT Interleukin 11
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IT Interleukin 12
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IT Interleukin 2
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(prepn. of solid porous matrixes for pharmaceutical uses)
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IT Interleukin 8
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IT Interleukin 9
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(prepn. of solid porous matrixes for pharmaceutical uses)
IT Interleukins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Lipids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Lipopolysaccharides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)

IT Lymphokines
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Lymphotoxin
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(prepn. of solid porous matrixes for pharmaceutical uses)
IT Monoclonal antibodies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Olive oil
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Peanut oil
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Peptides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Perfluorocarbons
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Platelet-derived growth factors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Polyethers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Polyphosphazenes
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IT Polysaccharides, biological studies
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IT Prostaglandins
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IT Proteins (general), biological studies
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(prepn. of solid porous matrixes for pharmaceutical uses)
IT Retinoids
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IT Ricins
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(prepn. of solid porous matrixes for pharmaceutical uses)
IT Safflower oil
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Terpenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prepn. of solid porous matrixes for pharmaceutical uses)
IT Transforming growth factors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Tumor necrosis factors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT Vitamins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT 101479-70-3, Adaprolol
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Adaprolol; prepn. of solid porous matrixes for pharmaceutical uses)
IT 64228-81-5, Atracurium besilate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Atracurium besilate; prepn. of solid porous matrixes for pharmaceutical uses)
IT 50-07-7, Mitomycin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Mitomycin; prepn. of solid porous matrixes for pharmaceutical uses)
IT 9028-31-3, Aldose reductase 125978-95-2, Nitric oxide synthase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; prepn. of solid porous matrixes for pharmaceutical uses)
IT 9081-34-9, 5.alpha.-Reductase
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibitors; prepn. of solid porous matrixes for pharmaceutical uses)
IT 9031-44-1, Kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(ligands for metalloprotein; prepn. of solid porous matrixes for pharmaceutical uses)
IT **9054-89-1, Superoxide dismutase**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(manganese-dependent; prepn. of solid porous matrixes for pharmaceutical uses)
IT 9001-12-1, Collagenase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT 591-93-5P, 1,4-Pentadiene 216245-34-0P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)
IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone acetate 50-04-4, Cortisone acetate 50-23-7, Hydrocortisone 50-24-8, Prednisolone 50-28-2, Estradiol, biological studies 50-33-9, Phenylbutazone, biological studies 50-44-2, Mercaptopurine 50-67-9, 5-Hydroxytryptamine, biological studies 50-76-0, Dactinomycin 50-78-2, Aspirin 50-99-7, Glucose, biological studies 51-05-8, Procaine hydrochloride 51-61-6, Dopamine, biological studies 52-21-1, Prednisolone acetate 52-53-9, Verapamil 52-67-5, Penicillamine 52-86-8, Haloperidol 53-02-1 53-03-2, Prednisone 53-19-0, Mitotane 53-36-1, Methylprednisolone acetate 53-41-8D, Androsterone, aza derivs. 53-86-1, Indomethacin 54-05-7, Chloroquine 54-85-3, Isoniazid 55-63-0, Nitroglycerin 55-98-1, Busulfan 56-75-7, Chloramphenicol 56-81-5, Glycerol, biological studies 57-09-0, Cetyltrimethylammonium bromide 57-22-7, Vincristine 57-27-2, Morphine, biological studies 57-30-7, Phenobarbital sodium 57-33-0, Pentobarbital sodium 57-43-2, Amobarbital 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 57-55-6, Propylene glycol, biological studies 57-83-0, Progesterone, biological studies 57-94-3, Tubocurarine chloride

58-22-0, Testosterone 58-32-2, Dipyridamole 58-82-2, Bradykinin 59-02-9, .alpha.-Tocopherol 59-05-2, Methotrexate 59-23-4, Galactose, biological studies 59-30-3, Folic acid, biological studies 60-54-8, Tetracycline 61-32-5, Methicillin 61-33-6, biological studies 61-68-7, Mefenamic acid 64-43-7, Amobarbital sodium 65-29-2, Gallamine triethiodide 65-49-6, Para-aminosalicylic acid 66-79-5, Oxacillin 67-56-1, Methanol, biological studies 67-78-7, Triamcinolone diacetate 67-97-0, Cholecalciferol 68-41-7, Cycloserine 69-53-4, Ampicillin 69-72-7D, Salicylic acid, esters 70-18-8, Glutathione, biological studies 71-27-2, Succinylcholine chloride 71-63-6, Digitoxin 71-73-8, Thiopental sodium 73-78-9, Lidocaine hydrochloride 74-82-8, Methane, biological studies 74-99-7, Propyne 75-00-3, Chloroethane 75-10-5, Difluoromethane 75-18-3, Methyl sulfide 75-19-4, Cyclopropane 75-29-6, Propane-2-chloro 75-31-0, 2-AminoPropane, biological studies 75-34-3, 1,1-Dichloroethane 75-35-4, 1,1-Dichloroethylene, biological studies 75-43-4, Dichlorofluoromethane 75-45-6, Chlorodifluoromethane 75-46-7, TriFluoromethane 75-56-9, Propane-1,2-epoxy, biological studies 75-61-6, Dibromodifluoromethane 75-63-8, Bromotrifluoromethane 75-69-4, Trichlorofluoromethane 75-71-8, Dichlorodifluoromethane 75-72-9, Chlorotrifluoromethane 75-73-0, Perfluoromethane 76-13-1, 1,1,2-Trichloro-1,2,2-Trifluoroethane 76-15-3, 1-Chloro-1,1,2,2,2-Pentafluoroethane 76-16-4, HexaFluoroethane 76-19-7, Octafluoropropane 76-25-5, Triamcinolone acetonide 76-57-3, Codeine 76-74-4, Pentobarbital 76-99-3, Methadone 77-02-1, Aprobarbital 77-21-4, Glutethimide 78-11-5, Pentaerythritol tetranitrate 78-78-4, 2-Methylbutane 78-79-5, 2-Methyl-1,3-Butadiene, biological studies 78-80-8, 2-Methyl-1-Buten-3-yne 79-10-7D, Acrylic acid, esters, polymers 79-17-4, Aminoguanidine 80-08-0, Dapsone 83-43-2, Methylprednisolone 87-33-2, Isosorbide dinitrate 92-13-7, Pilocarpine 95-80-7, 2,4-Diaminotoluene 96-40-2, 3-Chloro-cyclopentene 96-49-1, 1,3-Dioxolan-2-one 98-96-4, Pyrazinamide 99-20-7, **Trehalose** 103-90-2, Acetaminophen 106-98-9, 1-Butene, biological studies 106-99-0, 1,3-Butadiene, biological studies 107-00-6, 1-Butyne 107-01-7, 2-Butene 107-25-5, Methyl vinyl ether 109-66-0, n-Pentane, biological studies 109-67-1, 1-Pentene 109-92-2, Ethyl vinyl ether 109-93-3, Vinyl ether 111-02-4, Squalene 113-18-8, Ethchlorvynol 114-07-8, Erythromycin 115-07-1, Propene, biological studies 115-10-6, Methyl ether 115-25-3, OctafluoroCyclobutane 115-44-6, Talbutal 116-15-4, Hexafluoropropylene 118-42-3, Hydroxychloroquine 122-18-9, Benzyldimethylhexadecylammonium chloride 122-57-6 123-03-5, Cetylpyridinium chloride 123-63-7, Paraldehyde 124-03-8, Cetyldimethylethylammonium bromide 124-40-3, Dimethylamine, biological studies 124-94-7, Triamcinolone 125-02-0, Prednisolone sodium phosphate 125-04-2, Hydrocortisone sodium succinate 125-64-4, Methyprylon 125-84-8, Aminoglutethimide 126-07-8, Griseofulvin 126-52-3, Ethinamate 129-20-4, Oxyphenbutazone 130-15-4, 1,4-Naphthalenedione 130-95-0, Quinine 133-51-7, Meglumine antimonate 135-16-0 136-47-0, Tetracaine hydrochloride 139-07-1, Benzyldimethyldodecylammonium chloride 139-08-2, Benzyldimethyltetradecylammonium chloride 140-72-7, Cetylpyridinium bromide 143-67-9, Vinblastine sulfate 143-81-7, Butabarbital sodium 147-52-4, Nafcillin 147-94-4, Cytosine arabinoside 148-82-3, Melphalan 151-73-5, Betamethasone sodium phosphate 154-21-2, Lincomycin 287-23-0, Cyclobutane 302-17-0, Chloral hydrate 305-03-3 307-34-6, Perfluorooctane 307-45-9, Perfluorodecane 309-36-4, Methohexital sodium 309-43-3, Secobarbital sodium 317-52-2, Hexafluorenium bromide 334-99-6, NitrosotriFluoromethane 335-02-4, NitrotriFluoromethane 335-05-7, Trifluoromethanesulfonyl fluoride 335-57-9, Perfluoroheptane 338-65-8, 2-Chloro-1,1-Difluoroethane 350-51-6, 3-Fluorostyrene

353-36-6, Fluoroethane 353-85-5, Trifluoroacetonitrile 353-87-7, BromodifluoronitrosoMethane 354-72-3, Nitrosopentafluoroethane 354-80-3, Perfluoroethylamine 354-81-4, Nitropentafluoroethane 355-25-9, Decafluorobutane 355-42-0, Perfluorohexane 355-79-3, Perfluorotetrahydropyran 357-26-6, Perfluoro-1-Butene 359-35-3, 1,1,2,2-Tetrafluoroethane 360-89-4, Octafluoro-2-butene 366-70-1, Procarbazine-hydrochloride 371-67-5, 1,1,1-Trifluoro-diazoethane 371-77-7 371-78-8, Trifluoromethyl sulfide 373-52-4, Bromofluoromethane 374-07-2, 1,1-Dichloro-1,2,2,2-Tetrafluoroethane 375-96-2, Perfluorononane 376-87-4, Perfluoro-1-pentene 378-44-9, Betamethasone 420-45-1, Propane-2,2-difluoro 420-46-2, 1,1,1-Trifluoroethane 421-17-0, Trifluoromethanesulfenylchloride 421-83-0, Trifluoromethanesulfonyl chloride 423-26-7 423-33-6 435-97-2, Phenprocoumon 443-48-1, Metronidazole 460-12-8, Diacetylene 461-68-7, TetrafluoroAllene 463-49-0, Allene 463-58-1, Carbonyl sulfide 463-82-1, Neopentane 503-17-3, 2-Butyne 508-99-6, Hydrocortisone cypionate 514-36-3, Fludrocortisone acetate 525-66-6, Propranolol 536-33-4, Ethionamide 547-64-8, Methyl lactate 548-73-2, Droperidol 557-98-2, 2-Chloropropylene 559-40-0, Octafluorocyclopentene 561-27-3, Heroin 563-45-1, 3-Methyl-1-Butene 563-46-2, 2-Methyl-1-Butene 582-24-1D, Benzoylcarbinol, salts 590-19-2, 1,2-Butadiene 590-21-6, 1-ChloroPropylene 593-53-3, Fluoromethane 593-70-4, Chlorofluoromethane 593-98-6, Bromochlorofluoromethane 594-11-6, MEthylCyclopropane 595-33-5, Megestrol acetate 598-23-2, 3-Methyl-1-Butyne 598-53-8, Methyl isopropyl ether 598-56-1 598-61-8, MethylCyclobutane 624-72-6, 1,2-Difluoroethane 624-91-9, Methyl nitrite 625-04-7, 2-Pentanone-4-amino-4-methyl 627-20-3, cis-2-Pentene 632-58-6, Phthalic acid-tetrachloro 644-62-2
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)

IT 646-04-8, trans-2-Pentene 661-54-1, Propyne-3,3,3-trifluoro 661-97-2 677-56-5, Propane-1,1,1,2,2,3-hexafluoro 678-26-2, Perfluoropentane 684-16-2, Hexafluoroacetone 685-63-2, Hexafluoro-1,3-butadiene 689-97-4, Vinyl acetylene 692-50-2, Hexafluoro-2-butyne 752-61-4, Digitalin 768-94-5, Amantadine 818-92-8, 3-FluoroPropylene 846-50-4, Temazepam 921-13-1, Chlorodinitromethane 927-84-4, Trifluoromethyl peroxide 928-45-0, Butyl nitrate 968-93-4, Testolactone 987-24-6, Betamethasone acetate 990-73-8, Fentanyl citrate 1070-11-7, Ethambutol hydrochloride 1119-94-4, Lauryltrimethylammonium bromide 1119-97-7, Myristyltrimethylammonium bromide 1172-18-5 1177-87-3, Dexamethasone acetate 1191-96-4, EthylCyclopropane 1306-06-5, Hydroxylapatite 1397-89-3, Amphotericin B 1400-61-9, Nystatin 1404-04-2, Neomycin 1405-37-4, Capreomycin sulfate 1493-03-4, Difluoroiodomethane 1597-82-6, Paramethasone acetate 1630-94-0, 1,1-DimethylCyclopropane 1691-13-0, 1,2-Difluoroethylene 1722-62-9, Mepivacaine hydrochloride 1759-88-2 1867-66-9, Ketamine hydrochloride 2022-85-7, Flucytosine 2068-78-2, Vincristine sulfate 2314-97-8, IodotriFluoromethane 2366-52-1, 1-Fluorobutane 2375-03-3, Methylprednisolone sodium succinate 2392-39-4, Dexamethasone sodium phosphate 2511-95-7, 1,2-DimethylCyclopropane 2551-62-4, Sulfur hexafluoride 3116-76-5, Dicloxacillin 3385-03-3, Flunisolide 3458-28-4, Mannose 3485-14-1, Cyclacillin 3511-16-8, Hetacillin 3529-04-2, Benzyldimethylhexadecylammonium bromide 3810-74-0, Streptomycin sulfate 3858-89-7, Chloroprocaine hydrochloride 4185-80-2, Methotrimeprazine hydrochloride 4428-95-9, Foscarnet 4431-00-9, Aurintricarboxylic acid 4697-36-3, Carbenicillin 4786-20-3, Crotononitrile 4901-75-1, 3-Ethyl-3-methyldiaziridine 5534-09-8, Beclomethasone dipropionate 5536-17-4, Arabinosyl adenine 5611-51-8, Triamcinolone hexacetonide

5714-22-7, Sulfur fluoride (S2F10) 6000-74-4, Hydrocortisone sodium phosphate 7281-04-1, Benzyldimethyldodecylammonium bromide 7297-25-8, Erythritol tetranitrate 7439-89-6, Iron, biological studies 7440-01-9, Neon, biological studies 7440-06-4D, Platinum, compds. 7440-15-5, Rhenium, biological studies 7440-24-6, Strontium, biological studies 7440-26-8, Technetium, biological studies 7440-48-4, Cobalt, biological studies 7440-63-3, Xenon, biological studies 7440-65-5, Yttrium, biological studies 7601-55-0, Metocurine iodide 7637-07-2, biological studies 7647-14-5, Sodium chloride, biological studies 7681-14-3, Prednisolone tebutate 7727-37-9, Nitrogen, biological studies 7728-73-6 7782-41-4, Fluorine, biological studies 7782-44-7, Oxygen, biological studies 7783-82-6, Tungsten hexafluoride 9001-75-6, Pepsin 9001-78-9, Alkaline phosphatase 9002-01-1, Streptokinase 9002-04-4, Thrombin 9002-60-2, Adrenocorticotropic hormone, biological studies 9002-61-3 9002-72-6, Growth hormone 9002-79-3, Melanocyte stimulating hormone 9002-89-5, Poly(vinyl alcohol) 9003-11-6 9003-39-8, PVP 9004-10-8, Insulin, biological studies 9004-34-6, Cellulose, biological studies 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9004-67-5, Methyl Cellulose 9005-25-8, Starch, biological studies 9005-27-0, HETA-starch 9005-32-7, Alginic acid 9005-49-6, Heparin, biological studies 9005-64-5, Polyoxyethylene sorbitan monolaurate 9005-65-6, Polyoxyethylene sorbitan monooleate 9005-66-7, Polyoxyethylene sorbitan monopalmitate 9005-67-8, Polyoxyethylene sorbitan monostearate 9005-71-4, Polyoxyethylene sorbitan tristearate 9007-12-9, Calcitonin 9007-92-5, Glucagon, biological studies 9011-14-7, PMMA 9011-97-6, Cholecystokinin 9015-68-3, Asparaginase 9015-71-8, Corticotropin releasing factor 9036-19-5, Octoxynol 9039-53-6, Urokinase 9061-61-4, Nerve growth factor 10024-97-2, Nitrous oxide, biological studies 11000-17-2, Vasopressin 11056-06-7, Bleomycin 11096-26-7, Erythropoietin 13264-41-0, Cetyldimethylethylammonium chloride 13292-46-1, Rifampin 13311-84-7, Flutamide 13647-35-3, Trilostane 15500-66-0, Pancuronium bromide 15663-27-1, Cisplatin 15686-71-2, Cephalexin 15687-27-1, Ibuprofen 16009-13-5, Hemin 16136-85-9 17598-65-1, Deslanoside 18010-40-7, Bupivacaine hydrochloride 18323-44-9, Clindamycin 18378-89-7, Plicamycin 18773-88-1, Benzyldimethyltetradecylammonium bromide 20187-55-7, Bendazac 20274-91-3 20830-75-5, Digoxin 21829-25-4, Nifedipine 22204-53-1, Naproxen 22494-42-4, Diflunisal 22916-47-8, Miconazole 23110-15-8, Fumagillin 23541-50-6, Daunorubicin hydrochloride 24356-66-9 24764-97-4, 2-Bromobutyraldehyde 24991-23-9 25104-18-1, Polylysine 25151-81-9, Prostanoic acid 25316-40-9, Adriamycin 25322-68-3, PEG 25322-68-3D, PEG, ethers 25322-69-4, Polypropylene glycol 25513-46-6, Polyglutamic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(lactic acid) 26171-23-3, Tolmetin 26780-50-7, Glycolide-lactide copolymer 26787-78-0, Amoxicillin 26839-75-8, Timolol 28911-01-5, Triazolam 29121-60-6, Vaninolol 29767-20-2, Teniposide 30516-87-1, Azidothymidine 31637-97-5, Etofibrate 33069-62-4, Taxol 33125-97-2, Etomidate 33419-42-0, Etoposide 33507-63-0, Substance p 34077-87-7, DiChlorotrifluoroethane 34787-01-4, Ticarcillin 36322-90-4, Piroxicam 36637-19-1, Etidocaine hydrochloride 36791-04-5, Ribavirin 38000-06-5, Polylysine 38194-50-2, Sulindac 38821-53-3, Cephradine 39391-18-9, Cyclooxygenase 41575-94-4, Carboplatin 42399-41-7, Diltiazem 47141-42-4, Levobunolol 50370-12-2, Cefadroxil 50402-72-7, Piperidine-2,3,6-trimethyl 50700-72-6, Vecuronium bromide 50972-17-3, Bacampicillin 51264-14-3, Amsacrine 52205-73-9, Estramustine phosphate sodium 52365-63-6, Dipivefrin 53045-71-9, 1-Pentene-3-bromo 53188-07-1, Trolox 53678-77-6, Muramyldipeptide 53994-73-3, Cefaclor 54965-24-1, Tamoxifen citrate 55142-85-3, Ticlopidine 57223-18-4,

1-Nonen-3-yne 59277-89-3, Acyclovir 59467-96-8, Midazolam hydrochloride 60118-07-2, Endorphin 62031-54-3, Fibroblast growth factor 62229-50-9, Epidermal growth factor 62232-46-6, Bifemelane hydrochloride 62571-86-2, Captopril 62683-29-8, Colony stimulating factor 63659-18-7, Betaxolol 65277-42-1, Ketoconazole 68302-57-8 68367-52-2, Sorbinil 69279-90-9, Ansamitocin 72702-95-5, Ponalrestat 73218-79-8, Apraclonidine hydrochloride 73984-11-9 74381-53-6, Leuprolide acetate 74790-08-2, Spiroplatin 75847-73-3, Enalapril 76547-98-3, Lisinopril 77181-69-2, Sorivudine 80755-87-9 81486-22-8, Nipradilol 82159-09-9, Epalrestat 82410-32-0, Ganciclovir 82964-04-3, Tolrestat 83869-56-1, Granulocyte macrophage colony stimulating factor 86090-08-6, Angiostatin 88096-12-2 89149-10-0, 15-Deoxyspergualin 98023-09-7 99896-85-2 106956-32-5, Oncostatin M 113852-37-2, Cidofovir 116632-15-6, 1.2.3-Nonadecanetricarboxylic acid 2-hydroxytrimethylester 119813-10-4, Carzelesin 120279-96-1, Dorzolamide 120287-85-6D, Cetrorelix, derivs. 121181-53-1, Filgrastim 124389-07-7, Muramyltripeptide 127464-60-2, Vascular endothelial growth factor
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)

IT 127984-74-1, Somatuline 130209-82-4, Latanoprost 139639-23-9, Tissue plasminogen activator 141436-78-4, Protein kinase c 143011-72-7, Granulocyte colony stimulating factor 148717-90-2, Squalamine 163702-07-6, Perfluorobutylmethyl ether 169939-94-0, LY333531 216245-16-8 216245-28-2 216245-32-8 216382-88-6 216441-58-6
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of solid porous matrixes for pharmaceutical uses)

IT 9001-92-7, Protease
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(receptors; prepn. of solid porous matrixes for pharmaceutical uses)

L74 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 1999 ACS
AN 1998:758924 HCAPLUS
DN 130:62454
TI Characteristics and utilization of **trehalose**
AU Saito, Noriyuki
CS Dev. Cent., Hayashibara Biochem. Lab., Inc., Okayama, 700, Japan
SO BRAIN Techno News (1998), 70, 1-4
CODEN: BTEEEC
PB Seibutsukei Tokutei Sangyo Gijutsu Kenkyu Suishin Kiko
DT Journal; General Review
LA Japanese
CC 6-0 (General Biochemistry)
Section cross-reference(s): 1, 16, 17
AB A review with 13 refs. on **trehalose** structure, manuf., structure, phys. and chem. properties, and its application in food processing, **antioxidant** stabilization, prevention of tooth decay, and bone metab.
ST review **trehalose** property utilization
IT **99-20-7P, Trehalose**
RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); **PFD (Food or feed use)**; PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(characteristics and utilization of **trehalose**)

L74 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 1999 ACS
AN 1998:668085 HCAPLUS
DN 129:293888

TI Reduction inhibitory agent for active-oxygen eliminating activity
IN **Aga, Hajime; Shibuya, Takashi; Fukuda, Shigeharu; Miyake, Toshio**
PA Kabushiki Kaisha Hayashibara Seibutsu Kagaku Kenkyjuo, Japan
SO Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K031-70
CC **63-6** (Pharmaceuticals)
Section cross-reference(s): 1, 17
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 868916	A2	19981007	EP 98-301575	19980303
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI JP 97-63987		19970304		
JP 98-17647		19980114		

AB A redn. inhibitory agent for active-oxygen eliminating activity which comprises **trehalose** (I) as an effective ingredient, a method for inhibiting the redn. of active-oxygen eliminating activity which comprises incorporating either **trehalose** or the redn. inhibitory agent into plant **edible** products and/or plant **antioxidants**, and a compn. where the redn. of active-oxygen eliminating activity of the plant **edible** products and/or plant **antioxidants** is satisfactorily inhibited by the method. Fresh carrots were disrupted by a mixer and 10% of different saccharides, including I, was added to the mixt. and dissolved therein. The soln. was dried and pulverized into a powdery compn. About 100 g of the compn., was placed and sealed in a container and stored at 40.degree. for seven days. I had the highest residual percentage (66%) for active-oxygen eliminating activity per g of either of the compns. before and after the storage. A tablet contained ascorbic acid 20, cryst. .beta.-maltose 13, corn starch 4, a mixt of plantain and **trehalose** 3 parts. The tablet had an oxygen eliminating activity of over 560 units/g product and could be orally used for removing fever and maintaining/controlling stomach and intestinal conditions.

ST **trehalose** redn inhibition active oxygen elimination; pharmaceutical tablet **trehalose** fever intestine disease

IT **Vegetable**
(**edible** products; redn. inhibitory agent for active-oxygen eliminating activity)

IT Fibers
RL: BUU (Biological use, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**edible**; redn. inhibitory agent for active-oxygen eliminating activity)

IT Aloe barbadensis
Antioxidants
Apple
Artemisia
Beefsteak plant
Bifidobacterium
Cabbage
Carrot
Chewing gum
Chinese cabbage
Citrus medica

Cosmetics
Cucumber (Cucumis sativus)
Daikon radish
Drug delivery systems
Eggplant (Solanum melongena)
Food
Ginger
Hizikia fusiforme
Lentinula edodes
Nutrition (animal)
Ointments (drug delivery systems)
Onion (Allium cepa)
Pigments (nonbiological)
Plantago asiatica
Reduction
Saururaceae
Skin creams
Soybean (Glycine max)
Spinach (Spinacia oleracea)
Squash (Cucurbita)
Tablets (drug delivery systems)
(redn. inhibitory agent for active-oxygen eliminating activity)

IT Enzymes, biological studies
Minerals, biological studies
Oligosaccharides, biological studies
Polyphenols (nonpolymeric)
Vitamins
RL: BUU (Biological use, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(redn. inhibitory agent for active-oxygen eliminating activity)

IT Bath preparations
(salts; redn. inhibitory agent for active-oxygen eliminating activity)

IT 149-91-7, Gallicacid, biological studies 154-23-4, Catechin 520-26-3D, Hesperidin, derivs. **9054-89-1, Superoxide dismutase** 130603-71-3, .alpha.-Glucosyl rutin
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(redn. inhibitory agent for active-oxygen eliminating activity)

IT **7782-44-7**, Oxygen, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(redn. inhibitory agent for active-oxygen eliminating activity)

IT **99-20-7, Trehalose** 9005-25-8, Rice ;starch, biological studies **9057-02-7, Pullulan 12619-70-4, Cyclodextrin**
RL: BUU (Biological use, unclassified); **FFD (Food or feed use)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(redn. inhibitory agent for active-oxygen eliminating activity)

L74 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 1999 ACS
AN 1998:192437 HCAPLUS
DN 128:269738
TI Stabilization by **trehalose** of **superoxide dismutase**-like activity of various **vegetables**
AU **Aga, Hajime; Shibuya, Takashi**; Chaen, Hiroto; **Fukuda, Shigeharu**; Kurimoto, Masashi
CS Amase Inst., Hayashibara Biochem. Lab., Inc., Okayama, 700-0834, Japan
SO Nippon Shokuhin Kagaku Kogaku Kaishi (1998), 45(3), 210-215
CODEN: NSKKEF; ISSN: 1341-027X
PB Nippon Shokuhin Kagaku Kogakkai

DT Journal
LA Japanese
CC 17-6 (Food and Feed Chemistry)
AB The effect of **trehalose** on the **superoxide dismutase** (SOD)-like activity of various **vegetables** was investigated. Six hundred g of minced carrot and 66 g of **trehalose** were mixed and dried in vacuo at 40.degree. for 40 h. The drying matter was powd. and then preserved at 40.degree. for 7 d. The remaining SOD-like activity of the powder was higher than that of the carrot powder alone. **Trehalose** was the most effective in stabilizing SOD-like activity among various saccharides tested, such as glucose, sorbitol, mannitol, maltose, and sucrose. The same effect was obsd. with other **vegetable** powders. **Trehalose** seems to stabilize both SOD and **antioxidants** in **vegetables**.
ST **trehalose** stabilization **superoxide dismutase** **vegetable**
IT **Antioxidants**
Food additives
(effect of various saccharides on **superoxide dismutase**-like activity and **antioxidants**)
IT Disaccharides
Monosaccharides
RL: **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)
(effect of various saccharides on **superoxide dismutase**-like activity and **antioxidants**)
IT Cabbage
Carrot
Cucumber (Cucumis sativus)
Eggplant (Solanum melongena)
Onion (Allium cepa)
Radish (Raphanus sativus)
Spinach (Spinacia oleracea)
Squash (Cucurbita)
(stabilization by **trehalose** of **superoxide dismutase**-like activity of various **vegetables**)
IT 149-91-7, Gallic acid, biological studies 154-23-4, D-Catechin 130603-71-3, .alpha.-Glucosylrutin 161713-86-6
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(effect of various saccharides on **superoxide dismutase**-like activity and **antioxidants**)
IT 50-70-4, Sorbitol, biological studies 50-99-7, D-Glucose, biological studies 57-50-1, Sucrose, biological studies 69-65-8, Mannitol 69-79-4, Maltose
RL: **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)
(effect of various saccharides on **superoxide dismutase**-like activity and **antioxidants**)
IT **9054-89-1, Superoxide dismutase**
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(stabilization by **trehalose** of **superoxide dismutase**-like activity of various **vegetables**)
IT **99-20-7, Trehalose**
RL: **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)
(stabilization by **trehalose** of **superoxide dismutase**-like activity of various **vegetables**)

L74 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 1999 ACS
AN 1997:731707 HCAPLUS
DN 128:16289
TI Compositions for external use

IN Kondo, Chiharu; Senoo, Masami
PA Kosei Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K007-00
ICS A61K007-00; A61K007-42; A61K007-48
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 09291011	A2	19971111	JP 96-127955	19960424

AB Compns. [cosmetics or topical prepns.] for external use comprise: (A) apple exts. and (B) tyrosinase inhibitors, active oxygen scavengers, **antioxidants**, cell activators, antiinflammatories and/or moisturizers. A skin-care and antiaging lotion contained glycerin 5.0, 1,3-butylene glycol 6.5, POE sorbitan monolaurate 1.2, ethanol 8.0, apple exts. 0.01, **superoxide dismutase** 0.01, preservatives, perfumes, and purified water to 100 %.
ST skin cosmetic apple ext tyrosinase inhibitor; active oxygen scavenger apple ext cosmetic; **antioxidant** apple ext cosmetic; cell activator apple ext cosmetic; antiinflammatory moisturizer apple ext cosmetic
IT Animal cells
(activators; skin-care cosmetics contg. apple exts. and other substances)
IT Apple
(exts.; skin-care cosmetics contg. apple exts. and other substances)
IT Carboxylic acids, biological studies
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hydroxy; skin-care cosmetics contg. apple exts. and other substances)
IT Plant (Embryophyta)
(medicinal, exts.; skin-care cosmetics contg. apple exts. and other substances)
IT Cosmetics
(packs; skin-care cosmetics contg. apple exts. and other substances)
IT Anti-inflammatory drugs
Antiaging cosmetics
Antioxidants
Cosmetic emulsions
Cosmetic gels
Cosmetics
Lotions (cosmetics)
Moisturizers (cosmetics)
Ointments (drug delivery systems)
Skin cleansers
Skin creams
Topical drug delivery systems
(skin-care cosmetics contg. apple exts. and other substances)
IT Carotenes, biological studies
Collagens, biological studies
DNA
Elastins
Mucopolysaccharides, biological studies
Proteins (general), biological studies
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)
(skin-care cosmetics contg. apple exts. and other substances)
IT Hair conditioners
(tonics; skin-care cosmetics contg. apple exts. and other substances)
IT **7782-44-7**, Oxygen, biological studies
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(active, scavengers; skin-care cosmetics contg. apple exts. and other substances)
IT 9002-10-2, Tyrosinase
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibitors; skin-care cosmetics contg. apple exts. and other substances)
IT 50-28-2, Estradiol, biological studies 50-33-9, Phenylbutazone, biological studies 50-70-4, Sorbitol, biological studies 50-81-7, Vitamin c, biological studies 52-90-4D, Cysteine, derivs. 53-86-1, Indomethacin 56-65-5, Atp, biological studies 57-13-6, Urea, biological studies 57-88-5, Cholesterol, biological studies 60-32-2, .epsilon.-Aminocaproic acid 61-19-8, Amp, biological studies 61-68-7, Mefenamic acid 69-65-8, Mannitol 69-72-7, Salicylic acid, biological studies 69-89-6, Xanthine 70-18-8, Glutathione, biological studies 71-00-1, Histidine, biological studies 73-22-3, Tryptophan, biological studies 73-40-5, Guanine 79-14-1, Glycolic acid, biological studies 87-89-8, myo-Inositol 97-59-6, Allantoin 98-79-3, Pyrrolidonecarboxylic acid **99-20-7** 110-15-6, Butanedioic acid, biological studies 117-39-5, Quercetin 120-80-9, 1,2-Benzenediol, biological studies 123-31-9, Hydroquinone, biological studies 128-37-0, Bht, biological studies 149-91-7, Gallic acid, biological studies 463-40-1 471-53-4, Glycyrrhetinic acid 489-84-9, Guaiazulene 499-44-5, Hinokitiol 506-26-3, .gamma.-Linolenic acid 522-12-3, Quercitrin 635-65-4, Bilirubin, biological studies 1314-13-2, Zinc oxide, biological studies 1406-16-2, Vitamin d 1406-18-4, Vitamin e 7235-40-7, .beta.-Carotene 9004-61-9, Hyaluronic acid 9005-49-6, Heparin, biological studies 9007-28-7, Chondroitin sulfate 9050-30-0, Heparan sulfate **9054-89-1**, **Superoxide dismutase** 9056-36-4, Keratan sulfate 10417-94-4, Eicosapentaenoic acid 11103-57-4, Vitamin a 12001-76-2, Vitamin b 15307-79-6, Diclofenac sodium salt 15687-27-1, Ibuprofen 22071-15-4, Ketoprofen 24967-94-0, Dermatan sulfate 25013-16-5, Bha 103000-77-7, Glycyrrhezinic acid 169799-44-4, Keratin
RL: BUU (Biological use, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(skin-care cosmetics contg. apple exts. and other substances)

L74 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 1999 ACS
AN 1997:684491 HCAPLUS
DN 127:343339
TI Stabilized **superoxide dismutase** products for use in cosmetic, pharmaceutical and agri-food compositions
IN Bresson-Rival, Delphine; Boivin, Patrick; Linden, Guy; Perrier, Eric; Humbert, Gerard
PA Coletica, Fr.
SO PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DT Patent
LA French
IC ICM C12N009-02
ICS C12N009-08; C12N009-96; A23L001-015; A23L001-03; A23L001-211;

A23L003-3571; A61K007-48; A61K038-44
CC 7-3 (Enzymes)
Section cross-reference(s): 1, 17, 62
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9738095	A1	19971016	WO 97-FR603	19970403
	W: JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	FR 2747044	A1	19971010	FR 96-4165	19960403
	FR 2747044	B1	19980626		
	EP 891422	A1	19990120	EP 97-919477	19970403
	R: CH, DE, ES, FR, GB, LI				
PRAI	FR 96-4165	19960403			
	WO 97-FR603	19970403			

AB A **superoxide dismutase** (SOD) is disclosed. Germinated plant seeds are used in accordance with the invention as a source of SOD which can thereafter be complexed with a peroxidase and a enzyme cofactor. Cosmetic, pharmaceutical or agri-food compns. having anti-free radical activity can thus be obtained. SOD was isolated from germinated plant seeds. The effect of genus-species and variety of plant, time of germination, and presence of gibberellins were examd. The SOD was stabilized with a peroxidase, a cofactor (such as uric acid), and, optionally, with a sugar or polyol and an **antioxidant** such as tocopherols. An SOD compn. prepd. according to the invention was incorporated into a cosmetic emulsion. The SOD lost only 40% of its initial activity after 40 days at 20.degree., and lost only 50% activity after 40 days at 45.degree..

ST **superoxide dismutase** stabilization peroxidase cofactor; free radical destruction cosmetic pharmaceutical food

IT Barley
Cereal (grain)
Legume (Fabaceae)
Lentil
Pea
Soybean (Glycine max)
Wheat
(SOD isolation from germinated seeds of; stabilized **superoxide dismutase** products for use in cosmetic, pharmaceutical and agri-food compns.)

IT Seed
(SOD isolation from germinated; stabilized **superoxide dismutase** products for use in cosmetic, pharmaceutical and agri-food compns.)

IT Plant (Embryophyta)
(oleaginous, SOD isolation from germinated seeds of; stabilized **superoxide dismutase** products for use in cosmetic, pharmaceutical and agri-food compns.)

IT **Antioxidants**
Cosmetics
Drugs
Feed
Food
(stabilized **superoxide dismutase** products for use in cosmetic, pharmaceutical and agri-food compns.)

IT Carbohydrates, uses
Disaccharides
Iodides, uses
Monosaccharides

Polyhydric alcohols
Tocopherols
RL: MOA (Modifier or additive use); USES (Uses)
(stabilized **superoxide dismutase** products for use in cosmetic, pharmaceutical and agri-food compns.)

IT **9054-89-1P, Superoxide dismutase**
RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); **FFD (Food or feed use)**; PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(stabilized **superoxide dismutase** products for use in cosmetic, pharmaceutical and agri-food compns.)

IT 50-70-4, Sorbitol, uses 50-81-7, Ascorbic acid, uses 56-81-5, Glycerol, uses 62-53-3, Aniline, uses 69-65-8, Mannitol 69-93-2, Uric acid, uses 70-18-8, Glutathione, uses 77-09-8, Phenolphthalein 87-66-1, Pyrogallol 88-05-1, Mesidine 90-05-1, Guaiacol 95-54-5, o-Phenylenediamine, uses **99-20-7, Trehalose** 106-49-0, p-Toluidine, uses 108-95-2, Phenol, uses 526-84-1, Dihydroxymaleic acid 527-60-6, Mesitol 585-88-6, Maltitol 9003-99-0, Peroxidase 9007-43-6, Cytochrome C, uses 9013-66-5, Glutathione peroxidase 26281-43-6, 3,5-Dichloro-2-hydroxybenzenesulfonic acid 28752-68-3, ABTS
RL: MOA (Modifier or additive use); USES (Uses)
(stabilized **superoxide dismutase** products for use in cosmetic, pharmaceutical and agri-food compns.)

L74 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 1999 ACS
AN 1997:684267 HCAPLUS
DN 127:341811
TI Correction of genetic defects using chemical chaperones
IN Welch, William J.; Brown, C. Randell; Tatzelt, Jorg
PA Regents of the University of California, USA; Welch, William J.; Brown, C. Randell; Tatzelt, Jorg
SO PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-135
CC 1-12 (Pharmacology)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9737645	A1	19971016	WO 97-US5846	19970409
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9724485	A1	19971029	AU 97-24485	19970409
PRAI	US 96-15155		19960410		
	WO 97-US5846		19970409		

AB A method for stabilizing intracellular proteins known to cause disease, said method comprising contacting a cell with stabilizing agents such as DMSO, sugars, amino acids and TMAO (trimethylamine N-oxide), wherein the proteins are stabilized and the disease state lessened.
ST genetic disease conformation therapy chaperone chem

IT Nervous system diseases
(Gerstmann-Straussler syndrome; correction of genetic defects using chem. chaperones)
IT Alzheimer's disease
Amyotrophic lateral sclerosis
Antitumor agents
Cataract
Chronic liver diseases
Conformation (protein)
Creutzfeldt-Jakob disease
Emphysema
Familial hypercholesterolemia
Marfan syndrome
Osteogenesis imperfecta
Retinitis pigmentosa
Scrapie
Scurvy
Spongiform encephalopathy
Stabilizing agents
Tay-Sachs disease
Tumors (animal)
(correction of genetic defects using chem. chaperones)
IT .beta.-Amyloid
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); PRP (Properties); BIOL (Biological study); PROC (Process)
(correction of genetic defects using chem. chaperones)
IT Chaperonins
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(correction of genetic defects using chem. chaperones)
IT Amino acids, biological studies
Carbohydrates, biological studies
Polyhydric alcohols
Polyoxyalkylenes, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(correction of genetic defects using chem. chaperones)
IT Insomnia
(fatal familial; correction of genetic defects using chem. chaperones)
IT Endocrine diseases
(leprechaunism; correction of genetic defects using chem. chaperones)
IT Mental disorders
(maple syrup urine disease; correction of genetic defects using chem. chaperones)
IT CFTR (cystic fibrosis transmembrane conductance regulator)
Collagens, biological studies
Crystallins
Fibrillins
Insulin receptors
LDL receptors
Prion protein PrPc
Prion protein PrPSc
Prion proteins
Rhodopsins
p53 (protein)
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); PRP (Properties); BIOL (Biological study); PROC (Process)
(mutant; correction of genetic defects using chem. chaperones)

IT Type I collagen
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); PRP (Properties); BIOL (Biological study); PROC (Process)
(procollagen, pro-.alpha., mutant; correction of genetic defects using chem. chaperones)
IT Genetic diseases
(protein conformation defects from; correction of genetic defects using chem. chaperones)
IT Animal cell line
(.DELTA.F508; correction of genetic defects using chem. chaperones)
IT 9067-96-3, .alpha.-Ketoacid dehydrogenase
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); PRP (Properties); BIOL (Biological study); PROC (Process)
(correction of genetic defects using chem. chaperones)
IT 56-12-2, Gaba, biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-81-5, Glycerol, biological studies 56-86-0, Glutamic acid, biological studies 67-68-5, Dmso, biological studies 87-89-8, Inositol **99-20-7D**, **Trehalose**, isofluoroside 107-35-7, Taurine 107-43-7, Betaine 107-97-1, Sarcosine 147-85-3, Proline, biological studies 149-32-6, Erythritol 1184-78-7, Trimethylamine N-oxide 7789-20-0, Water-d2 25322-68-3, Polyethylene glycol 34522-32-2, Octopine
RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(correction of genetic defects using chem. chaperones)
IT 302-95-4, Sodium deoxycholate 9002-93-1, Triton x-100
RL: NUU (Nonbiological use, unclassified); USES (Uses)
(correction of genetic defects using chem. chaperones)
IT 9027-52-5 9041-92-3, .alpha.1 Antitrypsin **9054-89-1**, **Superoxide dismutase**
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); PRP (Properties); BIOL (Biological study); PROC (Process)
(mutant; correction of genetic defects using chem. chaperones)

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L77 21 S L76 AND L47
L78 3 S L76 AND ANTIOXID?
L79 0 S L76 AND ANTI OXID?
L80 1 S L78 AND VEGETABLE

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L81           5 S L76 AND VEGETABLE#
L82         305 S L76 AND PLANT
L83           1 S L77,L78 AND L80-L82
L84           2 S L61 AND L76
L85           2 S L83,L84
L86           4 S L81 NOT L85
L87           2 S L86 NOT POLYESTERS/TI
L88           4 S L85,L87
                E AGA H/AU
L89           5 S E3-E5
                E SHIBUYA T/AU
L90         637 S E3-E5,E8
                E FUKUDA S/AU
L91         532 S E3-E8,E23
                E MIYAKE T/AU
L92         528 S E3
                E MIYAKE TOSHIO/AU
L93           2 S E3
L94           6 S L76 AND L89-L93
L95           8 S L88,L94

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L95  ANSWER 1 OF 8  BIOSIS  COPYRIGHT 1999 BIOSIS
AN   1998:390785  BIOSIS
DN   PREV199800390785
TI   Trehalose content in foods.
AU   Oku, Kazuyuki; Sawatani, Ikuo; Chaen, Hiroto; Fukuda, Shigeharu;
     Kurimoto, Masashi
CS   Amase Inst., Hayashibara Biochem. Lab. Inc., 7-7 Amase-minamimachi,
     Okayama 700-0834 Japan
SO   Nippon Shokuhin Kagaku Kogaku Kaishi, (1998) Vol. 45, No. 6, pp. 381-384.
     ISSN: 1341-027X.
DT   Article
LA   Japanese
SL   Japanese; English
AB   The trehalose content in natural and fermented foods was analyzed by gas
     chromatography (GC). The samples were prepared by extraction from each
     food with 80% ethanol aqueous solution. For the GC analysis of sugar, an
     OV-17 packed column and a DB-5 capillary column were used. Trehalose was
     detected in relatively large quantity in mushrooms and baker's yeast. The
     trehalose content of dry solid materials ranged from 10% to 23% for
     mushrooms and from 7% to 11% for baker's yeast. Trehalose was also
     detected in alcoholic beverages (sake, beer and wine), mirin, bean
     products, shrimp, mozuku and hijiki. The trehalose content of each was
     39-240 ppm, 260 ppm, 5-150 ppm, 5-5000 ppm, 4 ppm and 2700 ppm,
     respectively. Wakame, konbu and honey have also been reported to contain
     trehalose, however, it was not detected in those materials in this study.
CC   Food Technology - General; Methods  *13502
     Biochemical Studies - General  *10060
IT   Major Concepts
        Foods
IT   Chemicals & Biochemicals
        trehalose: food constituent
IT   Miscellaneous Descriptors
        baker's yeast; bean products: vegetable product; beer:
```

alcoholic beverage; hijiki: ethnic food; mirin: ethnic food; mozuku: ethnic food; mushrooms: food; sake: alcoholic beverage; shrimp: seafood; wine: alcoholic beverage
RN 99-20-7 (TREHALOSE)

L95 ANSWER 2 OF 8 BIOSIS COPYRIGHT 1999 BIOSIS
AN 1998:255288 BIOSIS
DN PREV199800255288
TI Stabilization by trehalose of superoxide dismutase-like activity of various **vegetables**.
AU **Aga, Hajime; Shibuya, Takashi**; Chaen, Hiroto; **Fukuda, Shigeharu**; Kurimoto, Masashi
CS Amase Inst., Hayashibara Biochem. Lab. Inc., 7-7 Amase-minami, Okayama-shi 700-0834 Japan
SO Nippon Shokuhin Kagaku Kogaku Kaishi, (1998) Vol. 45, No. 3, pp. 210-215. ISSN: 1341-027X.
DT Article
LA Japanese
SL Japanese; English
AB The effect of trehalose on the superoxide dismutase (SOD)-like activity of various **vegetables** was investigated. Six hundred grams of minced carrot and 66 g of trehalose were mixed and dried in vacuo at 40degree C for 40 h. The drying matter was powdered and then preserved at 40degree C for 7 d. The remaining SOD-like activity of the powder was higher than that of the carrot powder alone. Trehalose was the most effective in stabilizing SOD-like activity among various saccharides tested, such as glucose, sorbitol, mannitol, maltose and sucrose. The same effect was observed with other **vegetable** powders. Trehalose seems to stabilize both SOD and **antioxidants** in **vegetables**.
CC Enzymes - Chemical and Physical *10806
Biochemical Methods - Proteins, Peptides and Amino Acids *10054
Biochemical Studies - Proteins, Peptides and Amino Acids *10064
Enzymes - Physiological Studies *10808
Plant Physiology, Biochemistry and Biophysics - Enzymes *51518
Biophysics - General Biophysical Techniques *10504
BC Angiospermae 25200
Umbelliferae 26915
IT Major Concepts
Enzymology (Biochemistry and Molecular Biophysics)
IT Chemicals & Biochemicals
superoxide dismutase: trehalose stabilization; trehalose
ORGN Super Taxa
Angiospermae: Spermatophyta, Plantae; Umbelliferae: Dicotyledones, Angiospermae, Spermatophyta, Plantae
ORGN Organism Name
carrot (Umbelliferae); **vegetable** (Angiospermae)
ORGN Organism Superterms
Angiosperms; Dicots; **Plants**; Spermatophytes; Vascular **Plants**
RN **99-20-7** (TREHALOSE)
9054-89-1 (SUPEROXIDE DISMUTASE)

L95 ANSWER 3 OF 8 BIOSIS COPYRIGHT 1999 BIOSIS
AN 1998:243698 BIOSIS
DN PREV199800243698
TI Superoxide dismutase activity in cultured corneal endothelial cells stored with trehalose: Superoxide dismutase activity in corneal endothelial cells.
AU Watanabe, M.; Takano, T.; Kanai, A.

CS Juntendo Univ. Sch. Med., Tokyo Japan
SO IOVS, (March 15, 1998) Vol. 39, No. 4, pp. S1020.
Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology Fort Lauderdale, Florida, USA May 10-15, 1998 Association for Research in Vision and Ophthalmology
DT Conference
LA English
CC Cytology and Cytochemistry - Animal *02506
Biochemical Studies - Proteins, Peptides and Amino Acids *10064
Biochemical Studies - Carbohydrates *10068
Enzymes - Physiological Studies *10808
Sense Organs, Associated Structures and Functions - Physiology and Biochemistry *20004
Tissue Culture, Apparatus, Methods and Media *32500
General Biology - Symposia, Transactions and Proceedings of Conferences, Congresses, Review Annuals *00520
BC Leporidae 86040
IT Major Concepts
Cell Biology; Enzymology (Biochemistry and Molecular Biophysics); Sense Organs (Sensory Reception)
IT Parts, Structures, & Systems of Organisms
corneal endothelial cell: sensory system, storage
IT Chemicals & Biochemicals
superoxide dismutase; trehalose: corneal storage medium component
IT Miscellaneous Descriptors
Meeting Abstract; Meeting Poster
ORGN Super Taxa
Leporidae: Lagomorpha, Mammalia, Vertebrata, Chordata, Animalia
ORGN Organism Name
rabbit (Leporidae)
ORGN Organism Superterms
Animals; Chordates; Lagomorphs; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Vertebrates
RN **9054-89-1** (SUPEROXIDE DISMUTASE)
99-20-7 (TREHALOSE)

L95 ANSWER 4 OF 8 BIOSIS COPYRIGHT 1999 BIOSIS
AN 1997:353364 BIOSIS
DN PREV199799652567
TI Action of a thermostable trehalose synthase from Thermus aquaticus on sucrose.
AU Nishimoto, Tomoyuki (1); Nakada, Tetsuya; Chaen, Hiroto; **Fukuda, Shigeharu**; Sugimoto, Toshiyuki; Kurimoto, Masashi; Tsujisaka, Yoshio
CS (1) Hayashibara Biochem. Lab. Inc., 7-7 Amase-minamimachi, Okayama 700 Japan
SO Bioscience Biotechnology and Biochemistry, (1997) Vol. 61, No. 5, pp. 898-899.
ISSN: 0916-8451.
DT Article
LA English
AB A thermostable trehalose synthase from Thermus aquaticus ATCC 33923, which catalyzes the interconversion between maltose and trehalose by intramolecular transglucosylation, converted sucrose into trehalulose (1-O-alpha-D-glucopyranosyl-D-fructose). The trehalulose-forming activity of the enzyme was very low compared with that of maltose and trehalose. Kinetic studies showed that sucrose competitively inhibited the interconversion activity between maltose and trehalose. Consequently, these three substrates, maltose, trehalose, and sucrose, are thought to

bind the same active site of trehalose synthase.
CC Biochemical Studies - Proteins, Peptides and Amino Acids *10064
Biochemical Studies - Carbohydrates *10068
Enzymes - Physiological Studies *10808
Virology - Bacteriophage *33504
BC Gram-Negative Aerobic Rods and Cocci *06500
IT Major Concepts
Biochemistry and Molecular Biophysics; Enzymology (Biochemistry and Molecular Biophysics); Microbiology
IT Chemicals & Biochemicals
TREHALOSE SYNTHASE; SUCROSE; TREHALOSE; MALTOSE; TREHALULOSE
IT Miscellaneous Descriptors
ACTIVE SITE; ATCC 33923; ENZYMATIC SYNTHESIS; ENZYME SUBSTRATE; ENZYMOLOGY; MALTOSE; SUCROSE; THERMOSTABILITY; TREHALOSE; TREHALOSE
SYNTHASE; TREHALULOSE
ORGN Super Taxa
Gram-Negative Aerobic Rods and Cocci: Eubacteria, Bacteria
ORGN Organism Name
gram-negative aerobic rods and cocci (Gram-Negative Aerobic Rods and Cocci); Thermus aquaticus (Gram-Negative Aerobic Rods and Cocci)
ORGN Organism Superterms
bacteria; eubacteria; microorganisms
RN 126341-88-6 (TREHALOSE SYNTHASE)
57-50-1 (SUCROSE)
99-20-7 (TREHALOSE)
69-79-4 (MALTOSE)
51411-23-5 (TREHALULOSE)

L95 ANSWER 5 OF 8 BIOSIS COPYRIGHT 1999 BIOSIS
AN 1997:130752 BIOSIS
DN PREV199799422565
TI Production of trehalose from starch by thermostable enzymes from Sulfolobus acidocaldarius.
AU Mukai, Kazuhisa (1); Tabuchi, Akihiko; Nakada, Tetsuya; **Shibuya, Takashi**; Chaen, Hiroto; **Fukuda, Shigeharu**; Kurimoto, Masashi; Tsujisaka, Yoshio
CS (1) Hayashibara Biochem. Lab. Inc., 7-7 Amase-minami machi, Okayama 700 Japan
SO Starch, (1997) Vol. 49, No. 1, pp. 26-30.
ISSN: 0038-9056.
DT Article
LA English
SL English; German
AB The optimum conditions for the production of trehalose from starch were investigated using two thermostable enzymes, maltooligosyl trehalose synthase (MTSase) and maltooligosyl trehalose trehalohydrolase (MTHase), from Sulfolobus acidocaldarius ATCC 33909. The optimum pH was 5.5 and the optimum temperature was 55-57 degree C using isoamylase from Pseudomonas amyloderamosa as a debranching enzyme. The addition of CGTase to the reaction mixture during the saccharification process caused an increase in trehalose and a decrease in maltose and maltotriose. Isoamylase was better than pullulanase as a debranching enzyme. The yield of trehalose was independent of the type of starch used. Under optimum conditions, the yield of trehalose from corn starch at 30% concentration was more than 82%.
CC Biochemical Studies - General *10060
Enzymes - General and Comparative Studies; Coenzymes *10802
Food Technology - General; Methods *13502

Food Technology - Preparation, Processing and Storage *13532
Physiology and Biochemistry of Bacteria *31000
BC Pseudomonadaceae 06508
Sulfolobaceae *09931
IT Major Concepts
Biochemistry and Molecular Biophysics; Enzymology (Biochemistry and Molecular Biophysics); Foods; Physiology
IT Chemicals & Biochemicals
TREHALOSE; MALTOOLIGOSYL TREHALOSE TREHALOHYDROLASE; MALTOOLIGOSYL
TREHALOSE SYNTHASE; ISOAMYLASE; PULLULANASE
IT Industry
food industry
IT Miscellaneous Descriptors
BIOBUSINESS; BIOPROCESS ENGINEERING; DEBRANCHING ENZYME; ENZYMOLOGY;
FOODS; ISOAMYLASE; MALTOOLIGOSYL TREHALOSE SYNTHASE; MALTOOLIGOSYL
TREHALOSE TREHALOHYDROLASE; MTHASE; MTSASE; PRODUCTION; PULLULANASE;
THERMOSTABLE ENZYME; TREHALOSE
ORGN Super Taxa
Bacteria - General Unspecified: Eubacteria, Bacteria; Pseudomonadaceae: Eubacteria, Bacteria; Sulfolobaceae: Archaeobacteria, Bacteria
ORGN Organism Name
bacteria (Bacteria - General Unspecified); microorganism (Microorganisms - Unspecified); Pseudomonas amyloderamosa (Pseudomonadaceae); Sulfolobus acidocaldarius (Sulfolobaceae)
ORGN Organism Superterms
archaeobacteria; bacteria; eubacteria; microorganisms
RN **99-20-7** (TREHALOSE)
170780-50-4 (MALTOOLIGOSYL TREHALOSE TREHALOHYDROLASE)
170780-49-1 (MALTOOLIGOSYL TREHALOSE SYNTHASE)
9067-73-6 (ISOAMYLASE)
9075-68-7 (PULLULANASE)

L95 ANSWER 6 OF 8 BIOSIS COPYRIGHT 1999 BIOSIS
AN 1997:42501 BIOSIS
DN PREV199799334489
TI Cloning and sequencing of a cluster of genes encoding novel enzymes of trehalose biosynthesis from thermophilic archaebacterium Sulfolobus acidocaldarius.
AU Maruta, Kazuhiko (1); Mitsuzumi, Hitoshi; Nakada, Tetsuya; Kubota, Michio; Chaen, Hiroto; **Fukuda, Shigeharu**; Sugimoto, Toshiyuki; Kurimoto, Masashi
CS (1) Hayashibara Biochem. Lab. Inc., 7-7 Amase-minami machi, Okayama 700 Japan
SO Biochimica et Biophysica Acta, (1996) Vol. 1291, No. 3, pp. 177-181. ISSN: 0006-3002.
DT Article
LA English
AB Trehalose biosynthesis genes, treZ, treX and treY, encoding maltooligosyltrehalose trehalohydrolase (TreZ), glycogen debranching enzyme (TreX), and maltooligosyltrehalose synthase (TreY) have been cloned from the thermophilic archaebacterium Sulfolobus acidocaldarius ATCC33909. The amino-acid sequences deduced from treZ, treX and treY are composed of 556, 713 and 720 amino-acid residues, respectively. TreZ and TreY are 33-40% homologous to the corresponding enzymes from Arthrobacter sp. Q36. We have proposed that the biosynthesis of trehalose in Sulfolobus occurs

via the actions of the three enzymes encoded by treZXY.
CC Biochemical Studies - Nucleic Acids, Purines and Pyrimidines *10062
Biochemical Studies - Proteins, Peptides and Amino Acids *10064
Biophysics - Molecular Properties and Macromolecules *10506
Enzymes - Chemical and Physical *10806
Physiology and Biochemistry of Bacteria *31000
Genetics of Bacteria and Viruses *31500
BC Sulfolobaceae *09931
IT Major Concepts
Biochemistry and Molecular Biophysics; Enzymology (Biochemistry and Molecular Biophysics); Genetics; Physiology
IT Chemicals & Biochemicals
TREHALOSE; GLYCOGEN; MALTOOLIGOSYLTREHALOSE SYNTHASE; MALTOOLIGOSYLTREHALOSE TREHALOHYDROLASE
IT Sequence Data
amino acid sequence; molecular sequence data; nucleotide sequence
IT Miscellaneous Descriptors
ENZYMOLOGY; GENE CLONING; GLYCOGEN DEBRANCHING ENZYME; MALTOOLIGOSYLTREHALOSE; MALTOOLIGOSYLTREHALOSE SYNTHASE; MALTOOLIGOSYLTREHALOSE TREHALOHYDROLASE; MOLECULAR GENETICS; TREHALOSE
ORGN Super Taxa
Sulfolobaceae: Archaeobacteria, Bacteria
ORGN Organism Name
Sulfolobus acidocaldarius (Sulfolobaceae)
ORGN Organism Superterms
archaeobacteria; bacteria; microorganisms
RN 99-20-7 (TREHALOSE)
9005-79-2 (GLYCOGEN)
170780-49-1 (MALTOOLIGOSYLTREHALOSE SYNTHASE)
170780-50-4 (MALTOOLIGOSYLTREHALOSE TREHALOHYDROLASE)

L95 ANSWER 7 OF 8 BIOSIS COPYRIGHT 1999 BIOSIS
AN 1996:106398 BIOSIS
DN PREV199698678533
TI Existence of a novel enzyme converting maltose into trehalose.
AU Nishimoto, Tomoyuki (1); Nakano, Masayuki; Ikegami, Shoji; Chaen, Hiroto; **Fukuda, Shigeharu**; Sugimoto, Toshiyuki; Kurimoto, Masashi; Tsujisaka, Yoshio
CS (1) Hayashibara Biochem. Lab. Inc., 7-7 Amase-minami-machi, Okayama 700 Japan
SO Bioscience Biotechnology and Biochemistry, (1995) Vol. 59, No. 11, pp. 2189-2190.
ISSN: 0916-8451.
DT Article
LA English
AB A bacterium, Pimelobacter sp. R48, isolated from soil, showed the ability to produce trehalose from maltose. The partially purified enzyme from a cell-free extract catalyzed the conversion of maltose into trehalose without requiring phosphate. The enzyme was considered to be a new intramolecular glucosyltransferase. The enzyme was also tentatively found to exist in Pseudomonas putida H262 isolated from soil and in some Thermus strains.
CC Comparative Biochemistry, General *10010
Biochemical Methods - Proteins, Peptides and Amino Acids *10054
Biochemical Methods - Carbohydrates *10058
Biochemical Studies - Proteins, Peptides and Amino Acids *10064
Biochemical Studies - Carbohydrates *10068
Biochemical Studies - Minerals *10069

Biophysics - General Biophysical Techniques *10504
Biophysics - Molecular Properties and Macromolecules *10506
Enzymes - General and Comparative Studies; Coenzymes *10802
Enzymes - Methods *10804
Enzymes - Chemical and Physical *10806
Enzymes - Physiological Studies *10808
Metabolism - General Metabolism; Metabolic Pathways *13002
Metabolism - Carbohydrates *13004
Metabolism - Proteins, Peptides and Amino Acids *13012
Nutrition - General Studies, Nutritional Status and Methods *13202
Physiology and Biochemistry of Bacteria *31000
Microbiological Apparatus, Methods and Media *32000
Food and Industrial Microbiology - Biosynthesis, Bioassay and Fermentation *39007
Soil Microbiology *40000
BC Gram-Negative Aerobic Rods and Cocci 06500
Pseudomonadaceae 06508
Nocardioidaceae *08811
IT Major Concepts
Biochemistry and Molecular Biophysics; Bioprocess Engineering; Enzymology (Biochemistry and Molecular Biophysics); Metabolism; Methods and Techniques; Microbiology; Nutrition; Physiology
IT Chemicals & Biochemicals
MALTOSE; TREHALOSE; GLUCOSYLTRANSFERASE
IT Miscellaneous Descriptors
BACTERIAL ENZYMES; BIOTECHNOLOGY; INTRAMOLECULAR GLUCOSYLTRANSFERASE;
SOIL ISOLATES; SYNTHETIC METHOD
ORGN Super Taxa
Gram-Negative Aerobic Rods and Cocci: Eubacteria, Bacteria; Nocardioidaceae: Eubacteria, Bacteria; Pseudomonadaceae: Eubacteria, Bacteria
ORGN Organism Name
gram-negative aerobic rods and cocci (Gram-Negative Aerobic Rods and Cocci); Pimelobacter sp. (Nocardioidaceae); Pseudomonas putida (Pseudomonadaceae); Thermus (Gram-Negative Aerobic Rods and Cocci)
ORGN Organism Superterms
bacteria; eubacteria; microorganisms
RN 69-79-4 (MALTOSE)
99-20-7 (TREHALOSE)
9031-48-5 (GLUCOSYLTRANSFERASE)

L95 ANSWER 8 OF 8 BIOSIS COPYRIGHT 1999 BIOSIS
AN 1993:431927 BIOSIS
DN PREV199396086552
TI The use of trehalose-stabilized lyophilized methanol dehydrogenase from Hyphomicrobium X for the detection of methanol.
AU Argall, Mary E.; Smith, Geoffrey D.
CS Div. Biochem. Molecular Biol., Sch. Life Sci., Fac. Sci., Australian National Univ., Canberra, ACT 0200 Australia
SO Biochemistry and Molecular Biology International, (1993) Vol. 30, No. 3, pp. 491-497.
ISSN: 1039-9712.
DT Article
LA English
AB The enzyme methanol dehydrogenase (EC 1.1.99.8) from Hyphomicrobium X was used in an attempt to develop a rapid colorimetric test for methanol. The enzyme was stabilized for storage by lyophilization in the presence of the disaccharide trehalose. It was found that the enzyme retained

significantly greater activity in the dried state with trehalose than without. The enzyme was partially purified by ammonium sulphate fractionation, after which it was found to be more stable in solution at pH 9 than at pH 7. A procedure is given which involves mixing a defined amount of enzyme with the methanol-containing water together with phenazine methosuphate (PMS), 2-6-dichlorophenol-indophenol (DCPIP) and cyanide, and observing the resultant colour change from blue to yellow if methanol is present. The sensitivity of the procedure is such that 9 mg L-1 of methanol can be readily detected.

CC Biochemical Methods - General *10050
Biochemical Studies - General *10060
Biophysics - General Biophysical Techniques *10504
Biophysics - Molecular Properties and Macromolecules *10506
Enzymes - Methods *10804
Enzymes - Physiological Studies *10808
Physiology and Biochemistry of Bacteria *31000
Food and Industrial Microbiology - General and Miscellaneous *39008
BC Prosthecate Bacteria *08310
IT Major Concepts
Biochemistry and Molecular Biophysics; Bioprocess Engineering; Enzymology (Biochemistry and Molecular Biophysics); Methods and Techniques; Physiology
IT Chemicals & Biochemicals
TREHALOSE; METHANOL DEHYDROGENASE; METHANOL; EC 1.1.99.8
IT Industry
crop industry; food industry
IT Miscellaneous Descriptors
CROP MANAGEMENT; ECONOMICS; HARVESTING; SHELF LIFE;
VEGETABLE
STORAGE TEMPERATURE
ORGN Super Taxa
Ascomycetes: Fungi, Plantae; Fungi - Unspecified: Fungi, Plantae; Fungi Imperfecti or Deuteromycetes: Fungi, Plantae; Plantae - Unspecified: Plantae; Prosthecate Bacteria: Eubacteria, Bacteria
ORGN Organism Name
fungus (Fungi - Unspecified); plant (Plantae - Unspecified); Colletotrichum coccodes (Ascomycetes); Helminthosporium solani (Fungi Imperfecti or Deuteromycetes); Prosthecate bacteria (Prosthecate Bacteria)
ORGN Organism Superterms
bacteria; eubacteria; fungi; microorganisms; nonvascular plants; plants
RN 99-20-7 (TREHALOSE)
37205-43-9Q (METHANOL DEHYDROGENASE)
74506-37-9Q (METHANOL DEHYDROGENASE)
67-56-1 (METHANOL)
37205-43-9 (EC 1.1.99.8)

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FILE LAST UPDATED: 06 FEB 1999 <19990206/UP>
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(FILE 'BIOSIS' ENTERED AT 13:21:59 ON 08 FEB 1999)

FILE 'FSTA' ENTERED AT 13:22:32 ON 08 FEB 1999

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                E TREHALOSE
L96          386 S E3,E5,E6
                E TREHALOSE/CT
                E E3+ALL/CT
L97          119 S E8
L98          386 S L96,L97
L99            3 S L98 AND ANTIOXID?
                E VEGETABLE/CT
L100          37 S E22+NT/CT AND L98
L101           3 S E15+NT/CT AND L98
L102           0 S E5,E6 AND L98
L103           0 S E27 AND L98
L104           1 S E28,E29 AND L98
L105          36 S E31+NT/CT AND L98
L106          40 S L100,L101,L104,L105
L107           2 S L106 AND STABIL?
L108           1 S L106 AND STABL?
L109           5 S L99,L107,L108
L110           4 S L109 NOT MUSHROOM
L111           1 S L106 AND DISMUTASE
L112           4 S L110,L111
L113          11 S L98 AND OXYGEN
L114           0 S L113 AND L106
                E J/CC
L115          34 S E3,E4 AND L98
L116          32 S L115 NOT L99,L107-L114
L117           1 S PAPAIN AND L116
L118          19 S L98 AND (AGA H? OR SHIBUYA T? OR FUKUDA S? OR MIYAKE T?)/AU
L119           5 S L112,L117
L120          18 S L118 NOT L119
L121           2 S L120 AND (DESICCANT OR SUPPLEMENTING)/TI
L122           7 S L119,L121
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FILE 'FSTA' ENTERED AT 13:36:30 ON 08 FEB 1999

=> d all tot

L122 ANSWER 1 OF 7 FSTA COPYRIGHT 1999 IFIS

AN 1998(10):J2360 FSTA FS FSTA

TI **Stabilization** by **trehalose** of superoxide **dismutase**-like activity of various vegetables.

AU Aga, H.; Shibuya, T.; Chaen, H.; Fukuda, S.; Kurimoto, M.

CS Amase Inst., Hayashibara Biochemical Laboratories Inc., 7-7, Amase-minami, Okayama-shi 700-0834, Japan

SO Journal of Japanese Society for Food Science and Technology (Nippon Shokuhin Kagaku Kogaku Kaishi), (1998) 45 (3) 210-215, 11 ref.
ISSN: 1341-027X.

DT Journal

LA Japanese SL English

AB Effects of **trehalose** on the superoxide **dismutase** (SOD)-like activity of various vegetable powders (aubergine, cucumber, cabbage, spinach, pumpkin, carrot, radish and onion) were investigated. 600 g of minced carrot and 66 g of **trehalose** were mixed and dried in vacuo at 40.degree. C for 40 h. Drying matter was powdered and then preserved at 40.degree. C for 7 days. SOD-like activity of the

carrot and **trehalose** powder was higher than that of carrot powder alone. Among a range saccharides tested (glucose, sorbitol, mannitol, maltose, **trehalose** and sucrose), **trehalose** was the most effective at **stabilizing** SOD-like activity. The same effect was observed with the other vegetable powders. It seems likely that **trehalose stabilizes** SOD and other **antioxidants** in vegetables. [From En summ. & tables.]
CC J (Fruits, Vegetables and Nuts)
CT DRIED FOODS; ENZYMES; INSTANT FOODS; OXIDOREDUCTASES; SUGARS; **VEGETABLES**; ENZYMIC ACTIVITY; POWDERS; SACCHARIDES; **SUPEROXIDE DISMUTASES**; **TREHALOSE**

L122 ANSWER 2 OF 7 FSTA COPYRIGHT 1999 IFIS
AN 1998(09):B1111 FSTA FS FSTA
TI Stabilization of papain from papaya peels.
AU Espin, N.; Islam, M. N.
CS Delaware Agric. Exp. Sta., Dep. of Animal & Food Sci., Coll. of Agric. Sci., Univ. of Delaware, Newark, DE 19717-1303, USA
SO Food Science and Technology International/Ciencia y Tecnologia de Alimentos Internacional, (1998) 4 (3) 179-187, 30 ref.
ISSN: 1082-0132.
DT Journal
LA English SL Spanish
AB Crude papain in papaya peel was stabilized before drying by the addition of various [**antioxidants** and other] chemicals (ascorbic acid, sodium ascorbate, erythorbic acid, sodium erythorbate, sodium metabisulphite, sodium tetrathionate, 4-hexylresorcinol, TBHQ, rutin, .alpha.-tocopherol, **trehalose** and sucrose). Chemicals were added to the ground papaya peel at 0, 0.12, 0.25, 0.5, 0.75, 1, 1.25 and 1.5% (w/w). Drying temp. were 40, 55 and 60.degree. C. Enzyme activity was measured before and afer drying by the casein digestion method. Percentage of enzyme activity retained (% EAR) was calculated by assigning a value of 100% EAR to fresh peels. Possible synergism between chemicals was also studied for a 1:1 ratio chemical/chemical at 1% total concn. The highest % EAR was obtained at 55.degree. C for all chemicals, except for sucrose and **trehalose**, which showed their best effect at 40.degree. C. TBHQ, rutin, .alpha.-tocopherol and 4-hexylresorcinol showed a destabilizing effect. Max. protective effect occurred at 1% concn. At this concn., sodium tetrathionate showed the best protective effect (90% EAR) followed by sodium metabisulphite (85% EAR), while enzymes treated with both sodium ascorbate and sodium erythorbate retained 75% of the original activity. Ascorbic acid and erythorbic acid were 10% less effective than their corresponding sodium salts, possibly due to lower pH. **Trehalose** showed only 57% EAR, while sucrose failed to produce any appreciable effect. No synergistic effect was shown by any combination of chemicals.
CC B (Biotechnology)
CT **ANTIOXIDANTS**; ENZYMES; PAPAYAS; PROTEINASES; STABILITY; ENZYMIC ACTIVITY; PAPAIN; STABILIZATION

L122 ANSWER 3 OF 7 FSTA COPYRIGHT 1999 IFIS
AN 97(04):C0083 FSTA FS FSTA
TI **Stabilization** of dry immobilized acetylcholinesterase on microtitration plates for colorimetric determination of its inhibitors in water and biological fluids.
AU Nguyen, V. K.; Ehret-Sabatier, L.; Goeldner, M.; Boudier, C.; Jamet, G.; Warter, J. M.; Poindron, P.
CS Dep. d'Immunologie, Immunopharmacologie et Path., Univ. Louis Pasteur, 74

Route du Rhin, BP 24, 67401 Illkirch Cedex, France
SO Enzyme and Microbial Technology, (1996) 20 (1) 18-23, 19 ref.
ISSN: 0141-0229.
DT Journal
LA English
AB The use of gelatin-**trehalose** or bovine serum albumin (BSA)-**trehalose** films for improving the **stability** of dry immobilized enzymes is described. The method was developed using acetylcholinesterase (AchE; EC 3.1.1.7), and the immobilized AchE preparations were subsequently tested for suitability in measuring pesticide and drug residues in water, lettuce and serum samples. The enzyme preparation was immobilized onto polystyrene microtitration plates as a solid support and covered with gelatin-**trehalose** or BSA-**trehalose** film. Immobilized AchE without a protective film lost all activity within 1 day, whereas full enzyme activity was maintained for at least 31 days at 40.degree. C and room temp. for gelatin-**trehalose** film-protected immobilized enzyme. Temp. and pH **stability** of film-protected AchE was also improved. The utility of these **stabilized** immobilized enzymes for determination of pesticide residues in water and lettuce samples was tested. Detection limits for pesticides in water and lettuce samples, were 0.5, 10, 10, 1 and 0.1 .mu.g/l for naled, dichlorvos, carbaryl, aldicarb and carbofuran, respectively. No interferences, were noted for analysis of pesticides in lettuce samples. The immobilized enzyme was also able to determine drug and pesticide residues in human serum samples. The advantages of this enzyme immobilization technique, and suitability of the protected immobilized AchE for determination of pesticides and drugs in agricultural and clinical samples are discussed. (KAR)
CC C (Hygiene and Toxicology)
CT Food safety plant foods; Food safety beverages; Esterases; Immobilized enzymes; Pesticides; **Lettuces**; Water; RESIDUES; CHOLINESTERASES; Enzymes; **Vegetables specific**; Food safety

L122 ANSWER 4 OF 7 FSTA COPYRIGHT 1999 IFIS
AN 96(11):J0272 FSTA FS FSTA
TI Stabilization of **papain** from papaya peels.
AU Espin, N. F.; Islam, M. N.
CS United States of America, Institute of Food Technologists [1996 Annual Meeting]; Dep. of Animal & Food Sci., Univ. of Delaware, Newark, DE 19716, USA
SO (1996) 1996 IFT annual meeting: book of abstracts, p. 15 ISSN 1082-1236.
DT Miscellaneous (Abstract of presentation)
LA English
AB Stabilization of **papain** extracted from papaya peels by addition of various agents (ascorbic acid, sodium ascorbate, erythorbic acid, sodium erythorbate, sodium metabisulphite, sodium tetrathionate, 4-hexylresorcinol, **trehalose** and sucrose, all at 0-1.5%) was examined at peel drying temp. of 40, 55 and 60.degree. C. Max. enzyme activity was retained in peels dried at 55.degree. C for all agents except sugars (with sugars, 40.degree. C proved optimal). For all agents except hexylresorcinol, which proved inhibitory, enzyme retention level increased with concn. of agent added, up to about 1%. At 1%, sodium tetrathionate showed best protective effect (90% enzyme retained), followed by metabisulphite and then ascorbate/erythorbate. Sugars, particularly sucrose, were poor protectants. [From En summ. Further abstracts of papers/posters presented at this meeting are covered in electronic formats of the FSTA database and may be traced via the corporate authors (CA) field, under United States of America, Institute of Food Technologists [1996 Annual Meeting]. See also FSTA (1996) 28 11A2.] (LJW)

CC J (Fruits, Vegetables and Nuts)
CT Papayas; Proteinases; Stability; **PAPAIN**; Fruits specific; Enzymes; Physical properties

L122 ANSWER 5 OF 7 FSTA COPYRIGHT 1999 IFIS
AN 95(03):T0022 FSTA FS FSTA
TI Preservatives world-wide market review. Biopreservatives come of age.
AU Stroh, W. H.
CS Bioconsult, Germany
SO International Food Ingredients, (1994) No. 6, 45-47. ISSN: 0924-5863.
DT Journal
LA English
AB The world market for preservatives is discussed, with particular emphasis on naturally-derived types (biopreservatives). The international market for preservatives amounted to approx. $1.5 billion in 1992. Of these, biopreservatives were not very well established for use in foods. However, with the resurgence of interest in more natural foods and consumer desire for reduced use of artificial preservatives, it is expected that potential exists for extension of the use of biopreservatives. Aspects considered include: world market for preservatives; biopreservatives (**trehalose**, plant extracts); commercial production; limitations on the use of food preservatives and **antioxidants**; and emerging markets. (HAS)
CC T (Additives, Spices and Condiments)
CT Markets; Preservatives; WORLD; Additives; Economics

L122 ANSWER 6 OF 7 FSTA COPYRIGHT 1999 IFIS
AN 95(03):L0035 FSTA FS FSTA
TI Energy-**supplementing** saccharide source and its uses.
AU **Shibuya, T.**; Sugimoto, T.; **Miyake, T.**
CS KK Hayashibara Seibutsu Kagaku Kenkyujo
SO European Patent Application
PI EP 619951 A2 1994
PRAI JP 93-93513 16 Mar. 1993 (Hayashibara Seibutsu Kagaku Kenkyujo, 2-3, 1-chome, Shimoishii, Okayama-shi, Okayama, Japan)
DT Patent (Patent)
LA English
AB **Trehalose** for use as a side effect-free energy supplement is prepared by allowing a nonreducing saccharide-forming enzyme to act upon a partial starch hydrolysate exhibiting reducing power. [From En summ.] (LJW)
CC L (Sugars, Syrups and Starches)
CT Patents; Sugars nonreducing; **TREHALOSE**; Sugars

L122 ANSWER 7 OF 7 FSTA COPYRIGHT 1999 IFIS
AN 94(09):G0028 FSTA FS FSTA
TI **Desiccant**, dehydration therewith, and dehydrated product obtainable thereby.
AU Mandai, T.; **Shibuya, T.**; Sugimoto, T.; **Miyake, T.**
CS KK Hayashibara Seibutsu Kagaku Kenkyujo
SO European Patent Application
PI EP 600730 A1 1994
PRAI JP 92-356600 2 Dec. 1992 (Hayashibara Seibutsu Kagaku Kenkyujo, 2-3, 1-chome, Shimoishii, Okayama-shi, Okayama, Japan)
DT Patent (Patent)
LA English
AB A drying process for foods, incorporating a non-reducing anhydrous **trehalose** as desiccant, is described. The dried products obtained

using this drying system are also described. During drying of the food, the anhydrous **trehalose** desiccant is converted to hydrous crystalline **trehalose**. The drying process does not alter final food product quality. [From En summ.] (HAS)
CC G (Catering, Speciality and Multicomponent Foods)
CT Patents; Drying; FOODS; Processing thermal

=> d his l123-

(FILE 'FSTA' ENTERED AT 13:36:30 ON 08 FEB 1999)
L123 19 S L98 AND PATENT
L124 19 S L98 AND PATENT?
L125 19 S L123,L124
L126 17 S L125 NOT L122

=> d all tot

L126 ANSWER 1 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 1998(10):L0518 FSTA FS FSTA
TI Crystalline powdery saccharide, its preparation and uses.
AU Chaen, H.; Mukai, K.; Miyake, T.
CS KK Hayashibara Seibutsu Kagaku Kenkyujo
SO European Patent Application
PI EP 850947 A1 1998
PRAI JP 96-344511 10 Dec. 1996 (Hayashibara Seibutsu Kagaku Kenkyujo, Okayama, Japan)
DT Patent (Patent)
LA English
AB A stable crystalline saccharide powder with a crystallinity of .gtoreq.40% which has low hygroscopicity and good fluidity and handling properties is described. The saccharide is prepared from an aqueous solution containing **trehalose** and a saccharide which is crystallizable in the presence of **trehalose**. [From En summ.]
CC L (Sugars, Syrups and Starches)
CT CRYSTALLIZATION; DRIED FOODS; INSTANT FOODS; **PATENTS**; SUGARS; POWDERS; SACCHARIDES

L126 ANSWER 2 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 97(12):B0158 FSTA FS FSTA
TI Enhanced accumulation of **trehalose** in plants.
AU Goddijn, O. J. M.; Verwoerd, T. C.; Krutwagen, R. W. H.; Voogd, E.
CS Mogen International NV
SO European Patent Application
PI EP 784095 A2 1997
PRAI PY 96-996 12 Jan. 1996 (Mogen International, NL-2333 CB Leiden, Netherlands)
DT Patent (Patent)
LA English
AB A process for producing **trehalose** in plant cells that are capable of producing trehalase is described. Plant cells containing the genes required to produce **trehalose** and trehalase are grown in the presence of a trehalase inhibitor. [From En summ.] (HAS)
CC B (Biotechnology)
CT Cells; Plants; Sugars; **Patents**; **TREHALOSE**; Carbohydrates

L126 ANSWER 3 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 97(08):L0051 FSTA FS FSTA
TI Production of **trehalose** from starch by thermostable enzymes from Sulfolobus acidocaldarius.
AU Mukai, K.; Tabuchi, A.; Nakada, T.; Shibuya, T.; Chaen, H.; Fukuda, S.; Kurimoto, M.; Tsujisaka, Y.
CS Hayashibara Biochemical Laboratories Inc., 7-7 Amase-minami machi, Okayama 700, Japan
SO Starch/Staerke, (1997) 49 (1) 26-30, 21 ref.
ISSN: 0038-9056.
DT Journal
LA English SL German
AB The optimum conditions for the production of **trehalose** from starch were investigated using 2 thermostable enzymes, maltooligosyl **trehalose** synthase (MTSase) and maltooligosyl **trehalose** trehalohydrolase (MTHase), from Sulfolobus acidocaldarius ATCC 33909. The optimum pH was 5.5 and the optimum temp. was 55-57.degree. C using isoamylase from Pseudomonas amyloderamosa as a debranching enzyme. The addition of CGTase to the reaction mixture during the saccharification process caused an increase in **trehalose** and a decrease in maltose and maltotriose. Isoamylase was better than pullulanase as a debranching enzyme. The yield of **trehalose** was independent of the type of starch used. Under optimum conditions, the yield of **trehalose** from corn starch at 30% concn. was >82%. (AS)
CC L (Sugars, Syrups and Starches)
CT Sugars; Enzymes; Starch; **TREHALOSE**; **PATENTS**

L126 ANSWER 4 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 97(04):L0023 FSTA FS FSTA
TI High **trehalose** content syrup.
AU Okada, K.; Shibuya, T.; Miyake, T.
CS KK Hayashibara Seibutsu Kagaku Kenkyujo
SO European Patent Application
PI EP 739986 A1 1996
PRAI JP 95-110291 12 Apr. 1995 (Hayashibara Seibutsu Kagaku Kenkyujo, Okayama, Japan)
DT Patent (Patent)
LA English
AB A high **trehalose** content syrup, in which are dissolved **trehalose** in an amount greater than its water solubility and other saccharide(s), has a lower DE and viscosity, and a higher sweetening power than conventional starch sugars. The syrup is stable, free of or substantially free of crystallization, and substantially free of bacterial contamination even at ambient temp. [From En summ.] (VJG)
CC L (Sugars, Syrups and Starches)
CT Sugar syrups; **Patents**; **TREHALOSE**; SYRUPS

L126 ANSWER 5 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 97(02):P0123 FSTA FS FSTA
TI Yogurt.
AU Akahoshi, R.; Mizobuchi, T,; Takahashi, Y.; Saita, T.
CS KK Yakult Honsha
SO PCT International Patent Application
PI WO 96/25050 A1 1996
PRAI JP 95-52067 17 Feb. 1995 (KK Yakult Honsha, Tokyo, Japan)
DT Patent (Patent)
LA Japanese SL English
AB A method for manufacture of yoghurt containing highly unsaturated fatty

acids, such as docosahexaenoic acid or eicosapentaenoic acid, is described. A sweetener (selected from palatinose, palatinit, maltose, maltitol, glucose, reducing glucose and **trehalose**) is added to yoghurt containing lactic acid bacteria and Bifidobacterium; a refined fish oil containing the highly unsaturated fatty acids is then added. The resulting mixture is packaged into a hermetically sealed container with O2 barrier properties. The yoghurt has good flavour properties, without having a fishy aroma, and is stable over a reasonable storage period. [From En summ.] (HAS)
CC P (Milk and Dairy Products)
CT Fatty acids; **Patents**; Yoghurt; UNSATURATED FATTY ACIDS; Fermented dairy products; Acids; Lipids

L126 ANSWER 6 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 97(02):L0044 FSTA FS FSTA
TI Process for the production of galactosyltrehalose and foods containing thereof.
AU Kase, T.; Motojima, K.; Sakai, J.; Takahashi, E.; Konai, Y.
CS Kureha Chemical Industry Co. Ltd.
SO European Patent Application
PI EP 731172 A2 1996
PRAI JP 95-78313 9 Mar. 1995 (Kureha Chemical Industry, Chuo-ku, Tokyo, Japan)
DT Patent (Patent)
LA English
AB A process for the manufacture of galactosyltrehalose for use in foods is described. Galactosyltrehalose is prepared by addition of .beta.-galactosidase to lactose, or to a raw material containing lactose and **trehalose** or just **trehalose**. [From En summ.] (HAS)
CC L (Sugars, Syrups and Starches)
CT Sugars; **Patents**; GALACTOSYLTREHALOSE; Carbohydrates

L126 ANSWER 7 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 96(06):M0161 FSTA FS FSTA
TI Method for producing bread.
AU Ohtani, M.; Usui, N.; Okita, N.
CS Ajinomoto Co. Inc.
SO European Patent Application
PI EP 688501 A1 1995
PRAI JP 94-139592 31 May 1994 (Ajinomoto, Tokyo 104, Japan)
DT Patent (Patent)
LA English
AB A rapid method for producing bread is described. Bread dough containing **trehalose** is fermented with yeast and baked. The bread has a good colour, taste (flavour) and shelf life. [From En summ.] (VJP)
CC M (Cereals and Bakery Products)
CT **Patents**; Breadmaking; Processing

L126 ANSWER 8 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 96(06):L0045 FSTA FS FSTA
TI Saccharide composition with reduced reducibility, and preparation and uses thereof.
AU Shibuya, T.; Sugimoto, T.; Miyake, T.
CS KK Hayashibara Seibutsu Kagaku Kenkyujo
SO European Patent Application
PI EP 690130 A1 1996
PRAI JP 94-180393 27 Jun. 1994 (KK Hayashibara Seibutsu Kagaku Kenyujo, Okayama-shi, Okayama, Japan)

DT Patent (Patent)
LA English
AB Preparation and use of a saccharide composition with a reduced reducibility is described. The composition is prepared by hydrogenating a saccharide mixture comprising reducing saccharides and non-reducing saccharides consisting of **trehalose** and/or saccharides having a **trehalose** structure. The resulting composition has satisfactory sweetness, taste and stability, and can be used in foods, cosmetics and pharmaceuticals susceptible to reduction. [From En summ.] (TJR)
CC L (Sugars, Syrups and Starches)
CT Sugars; **Patents**; SACCHARIDES; Carbohydrates

L126 ANSWER 9 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 95(08):B0098 FSTA FS FSTA
TI Production of **trehalose** in plants.
AU Hoekema, A.; Pen, J.; Does, M. P.; Elzen, P. J. M. van den
CS Mogen International NV
SO PCT International Patent Application
PI WO 95/06126 1995
PRAI PC 93-/02290 24 Aug. 1993 (Mogen International, NL-2333 CB, Leiden, Netherlands)
DT Patent (Patent)
LA English
AB The production of **trehalose** in a plant host due to the presence of a plant expressible gene in the host is presented. The plant expressible gene comprises: a transcriptional initiation region (functional in plant host); a DNA sequence encoding a **trehalose** phosphate synthase; and a transcriptional termination sequence (functional in plant host). [From En summ.] (VJP)
CC B (Biotechnology)
CT **Patents**; Plants; Sugars nonreducing; Gene expression; **TREHALOSE**; Sugars; Genetics

L126 ANSWER 10 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 92(09):N0075 FSTA FS FSTA
TI Saccharide fatty acid polyester fat substitutes.
AU Meyer, R. S.; Akoh, C. C.; Swanson, B. G.; Winter, D. B.; Root, J. M.; Campbell, M. L.
CS Curtice-Burns Inc.
SO PCT International Patent Application
PI WO 92/03060 A1 1992
PRAI WO 90/04769 (US) (900822) [Curtice-Burns, Rochester, NY, USA)
DT Patent (Patent)
LA English
AB A fat substitute food composition is prepared in which 0.5-95% of the total fat content comprises a polysaccharide fatty acid polyester. The process comprises esterifying hydroxyl groups of a saccharide to form a lower acyl ester saccharide, and admixing the lower acyl ester saccharide, a fatty acid lower alkyl ester, and an alkali metal catalyst to form a reaction mixture. The reaction mixture is heated to 100-125.degree. C and maintained at that temp. for a predeterminded period of time. A low vacuum of from 0 to 10 torr is drawn over the reaction mixture. Yields of 95-99% can be achieved using this method. Novel saccharide polyesters such as raffinose fatty acid polyester, stachyose fatty acid polyester, and **trehalose** fatty acid polyester can be produced. (VJG)
CC N (Fats, Oils and Margarine)
CT **Patents**; Polysaccharides; Fatty acids; Fats; POLYESTERS; FAT SUBSTITUTES; WORLD; Carbohydrates; Lipids

L126 ANSWER 11 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 91(10):V0037 FSTA FS FSTA
TI Sweetened condensed milk like composition and a method for producing it.
AU Iijima, Y.; Yamabe, R.; Nakatsukasa, M.; Ogiwara, H.
CS Lotte Co. Ltd.
SO United States Patent
PI US 4948616 1990
PRAI US 89-347385 2 May 1989 (Lotte, Tokyo, Japan)
DT Patent
LA English
AB Sweetened condensed milk composition comprises palatinose and palatinose syrup in a solids wt. ratio of <2:1, preferably 1:1. The sugar composition of a constituent sugar solution preferably includes 70% palatinose and 20% **trehalulose**, with, preferably, milk solids at 25% and water at 30%. The basic milk may be raw, partially or fully skimmed, processed or evaporated (whole or skim). [From En summ.] (HBr)
CC V (Patents)
CT Milk; CONDENSED MILK; **PATENTS**; Dairy products

L126 ANSWER 12 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 89(10):V0015 FSTA FS FSTA
TI Food process.
AU Roser, B. J.
CS Quadrant Bioresources Ltd.
SO European Patent Application
PI EP 297887 A1 1989
PRAI GB 87-/15238 29 Jun. 1987 (Quadrant Bioresources Ltd., Bedfordshire, UK)
DT Patent
LA English
AB A method for spray-drying high-protein foods, e.g. whole milk, eggs, fruit juices or coffee, is characterized by incorporation of **trehalose**, .alpha.-D -glucopyranosyl-.alpha.-D -glucopyranoside, into the food to be dried. It is claimed that **trehalose** protects the proteins in the foods from denaturation, resulting in reconstituted products with properties similar to those of the original foods. (DSA)
CC V (Patents)
IT Spray-drying; foods, spray-drying of proteins high, **Patent**
IT Proteins; foods, spray-drying of proteins high, **Patent**
IT Drying

L126 ANSWER 13 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 89(07):V0005 FSTA FS FSTA
TI Drying water-containing foodstuff.
AU Roser, B. J.
CS Quadrant Bioresources Ltd.
SO UK Patent Application
PI GB 2206273 A 1989
PRAI GB 87-15238 29 Jun. 1987 (Quadrant Bioresources, Soulbury, UK)
DT Patent
LA English
AB A method of drying a water-containing food or beverage at a temp. above ambient is characterized by incorporation of **trehalose** at a **trehalose**:protein ratio of 1:2.5-1.75. Applications cited are milk, eggs and fruit and vegetable products (juices, concentrates, pastes, purees). (HBr)
CC V (Patents)
IT Drying; milk, drying of, **Patent**
IT Drying; foods, drying of moisture-containing, **Patent**
IT Moisture content; foods, drying of moisture-containing, **Patent**

IT Milk; drying of milk, **Patent**

L126 ANSWER 14 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 87(03):V0062 FSTA FS FSTA
TI Freeze resistant dough and novel microorganism for use therein.
AU Uno, K.; Oda, Y.; Shigenori, O.
CS Kyowa Hakko Kogyo Co. Ltd.
SO European Patent Application
PI EP 196233 A2 1986
DT Patent
LA English
AB A freeze-resistant dough containing flour, water, and a yeast (Saccharomyces sp.) is described. The yeast is capable of maltose fermentation and can withstand freezing. It is characterized by a sporulation ratio of P10% and a **trehalose** content (in the microbial cells) of P5%. [From En summ.] (DMA)
CC V (Patents)
IT Yeasts bakers; dough, yeasts for freeze resistant, **Patent**
IT Freezing; dough, yeasts for freeze resistant, **Patent**
IT Dough; yeasts for freeze resistant dough, **Patent**

L126 ANSWER 15 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 83(12):M2117 FSTA FS FSTA
TI [Method for production of bakers' yeast.]
AU Fabian, J.; Beran, J.; Havlik, S.
SO Czechoslovak Patent, 204 593.
PI 1981
DT Patent
LA Czech
AB A method for producing bakers' yeast with high concn. of glycogen and **trehalose**, improved keeping qualities and resistance to dehydration involves adding all the minerals and N and P compounds to the fermentation vat during the period between the start of fermentation and the middle of the total fermentation time. Only pure molasses mash is subsequently added, and the need for a secondary fermentation phase is eliminated. (HBr)
CC M (Cereals and Bakery Products)
IT Yeasts bakers; bakers yeasts, quality improvement in, **Patent**

L126 ANSWER 16 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 77(06):M0793 FSTA FS FSTA
TI [Method for production of baker's yeast.]
AU Semikhatova, N. M.; Chulina, E. P.; Lozenko, M. F.; Kochkina, I. B.
CS Union of Soviet Socialist Republics, Vsesoyuznyi Nauchno-issledovatel'skii Institut Khlebopekarnoi Promyshlennosti
SO USSR Patent, 544 670.
PI 1977
DT Patent
LA Russian
AB Yeast is cultivated in an aerated nutrient medium containing molasses as the C source, which is introduced in portions. To improve yeast quality and increase its stability by raising the **trehalose** content, molasses are initially introduced in an amount of 28-35% of the total amount to be used up to the start of periodic take-off of yeast suspension. Take-off is performed every 2 h in a portion of culture medium. During maturation of the suspension, molasses are preferably added during the second h in an amount of 0.2% calculated as sugar by vol. (W&Co)
CC M (Cereals and Bakery Products)

IT Yeasts (bakers); bakers yeasts, culture of, **Patent**, USSR
IT Culture; bakers yeasts, culture of, **Patent**, USSR

L126 ANSWER 17 OF 17 FSTA COPYRIGHT 1999 IFIS
AN 75(08):M0978 FSTA FS FSTA
TI [Method of culture of baker's yeast.]
AU Semikhatova, N. M.; Chulina, E. P.; Kochkina, I. B.; Ozhegova, E. I.
CS Union of Soviet Socialist Republics, Vsesoyuznyi Nauchno-issledovatel'skii Institut Khlebopekarnoi Promyshlennosti
SO USSR Patent, (1974) 455 146.
DT Journal
LA Russian
AB Yeast is cultivated in a nutrient medium containing mineral salts and sources of C and N. The yeast is matured in 2 stages, which increases **trehalose** content and partially inactivates proteolytic enzymes. (W&Co)
CC M (Cereals and Bakery Products)
IT Yeasts (bakers); bakers yeasts, culture media for, **Patent**, USSR
IT Culture; bakers yeasts, culture media for, **Patent**, USSR
IT Media; bakers yeasts, culture media for, **Patent**, USSR

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FILE LAST UPDATED: 02 FEB 1999 <19990202/UP>

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(FILE 'FROSTI' ENTERED AT 13:39:22 ON 08 FEB 1999)
E TREHALOSE
L127 349 S E3-E6,E8
E VEGETABLE/CT
L128 16370 S E3
L129 7 S L127 AND L128
L130 3 S L129 AND VEGETABLE#/TI
E PLANT/CT
L131 1808 S E3
E PLANTS/CT
L132 1797 S E3
L133 2 S L127 AND L131,L132
L134 5 S L130,L133

FILE 'FROSTI' ENTERED AT 13:47:35 ON 08 FEB 1999

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L134 ANSWER 1 OF 5 FROSTI COPYRIGHT 1999 LFRA
AN 473067 FROSTI
TI Freshness retaining agent for cut **vegetable** or cut fruit.
IN Kajiwara S.; Ketsuen K.; Naruse H.
PA Kyokuto Int. Corp.; Hayashibara Biochem. Lab Inc.
SO Japanese Patent Application
PI JP 09252719 A 19970930
AI 19960321
NTE 19970930

DT Patent
LA Japanese
SL English
AB An inexpensive freshness-retaining agent for cut fruit or vegetables is disclosed, which consists of 20-62 wt% ethanol, 2.5-20 wt% **trehalose**, 0.1-0.5 wt% ascorbic acid, and water. The product is safe and can be used to retain the freshness of cut fruit and vegetables for a period of about 5 days.
SH FRUIT AND VEGETABLE PRODUCTS
CT ASCORBIC ACID; CUT; CUT FRUIT; CUT VEGETABLES; ETHANOL; FRESHNESS; FRUIT;
INCREASE; JAPANESE PATENT; RETENTION; SHELF LIFE; **TREHALOSE**; **VEGETABLES**
DED 6 Aug 1998

L134 ANSWER 2 OF 5 FROSTI COPYRIGHT 1999 LFRA
AN 471259 FROSTI
TI Freshness holding method for cut **vegetable**.
IN Kajiwara S.; Ketsuen K.; Naruse H.
PA Kyokuto Int. Corp.; Hayashibara Biochem. Lab. Inc.
SO Japanese Patent Application
PI JP 09224565 A 19970902
AI 19960226
NTE 19970902
DT Patent
LA Japanese
SL English
AB The invention relates to a method for retaining the freshness of cut vegetables safely. The method involves contacting the cut produce with a solution containing 0.8-1.5 wt% ethanol, 0.1-5 wt% **trehalose** and 0.005-0.3 wt% ascorbic acid. The method is low-cost and results in an increased shelf-life for cut vegetables.
SH FRUIT AND VEGETABLE PRODUCTS
CT ASCORBIC ACID; CUT; CUT VEGETABLES; ETHANOL; FRESHNESS; JAPANESE PATENT;
RETAINING; **TREHALOSE**; **VEGETABLES**
DED 21 Jul 1998

L134 ANSWER 3 OF 5 FROSTI COPYRIGHT 1999 LFRA
AN 469883 FROSTI
TI Stabilization by **trehalose** of superoxide dismutase-like activity of various **vegetables**.
AU Aga H.; Shibuya T.; Chaen H.; Fukuda S.; Kurimoto M.
SO Nippon Shokuhin Kagaku Kogaku Kaishi, 1998, 45 (3), 210-215 (11 ref.)
DT Journal
LA Japanese
SL English
AB The effect of **trehalose** on the superoxide dismutase-like activity of different vegetables was examined in this study. Minced carrot and **trehalose** were mixed and dried under vacuum at 40 C for 40 hours. The dried matter was powdered and preserved at 40 C. The remaining superoxide dismutase-like activity of the powder was higher than that of the carrot powder alone. For the sugars tested - **trehalose**, glucose, sorbitol, mannitol, maltose, and sucrose - **trehalose** was the most effective in stabilizing superoxide dismutase-like activity. The same effect occurred with other vegetable powders. The authors suggest that **trehalose** stabilizes both superoxide dismutase and antioxidants in vegetables.
SH FRUIT AND VEGETABLE PRODUCTS

CT CARROTS; ENZYMIC ACTIVITY; STABILITY; SUGARS; SUPEROXIDE DISMUTASE;
TREHALOSE; VEGETABLE POWDERS; **VEGETABLES**
DED 23 Jun 1998

L134 ANSWER 4 OF 5 FROSTI COPYRIGHT 1999 LFRA
AN 415417 FROSTI
TI Enhanced accumulation of **trehalose** in plants.
IN Goddijn O.J.M.; Verwoerd T.C.; Krutwagen R.W.H.H.; Voogd E.
PA Mogen International
SO PCT Patent Application
PI WO 9621030 A1
AI 19960103
PRAI Netherlands 19950104; 19950907
DT Patent
LA English
SL English
AB A method for the production of **trehalose** in plant cells is described, and a method for increasing the levels of **trehalose** in plants capable of producing **trehalose** is disclosed. **Trehalose** is a widespread naturally occurring disaccharide, which is generally not found in plants. The method uses Angiospermae or other higher plants. The plant or plant cells are cultivated in the presence of a **trehalose** inhibitor.
SH PROCESSING
CT ANGIOSPERMAE; DISACCHARIDES; INCREASE; PCT PATENT; **PLANTS*****
;
***TREHALOSE**
DED 15 Aug 1996

L134 ANSWER 5 OF 5 FROSTI COPYRIGHT 1999 LFRA
AN 361654 FROSTI
TI **Trehalose** is a sweet target for agbiotech. (A new sweetening agent.)
AU Anon.
SO Biotechnology, 1994, 12 (13), 1328 (0 ref.)
DT Journal
LA English
AB **Trehalose** is a new sweetening agent that is reported to be capable of improving quality and flavour by making dried and processed foods taste fresher. This article considers **trehalose**, its development and applications. Osmotica Foods is to develop **trehalose**-based foods and food ingredients and MOGEN International and D.J. van der Have are collaborating on the synthesis of **trehalose** in plants.
SH SWEETENERS
CT GENETICS; NEW PRODUCTS; **PLANTS**; SWEETENERS;
TREHALOSE
DED 12 Jan 1995

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FILE LAST UPDATED: 03 FEB 1999 <19990203/UP>
>>>UPDATE WEEKS:

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MOST RECENT DERWENT WEEK              199905   <199905/DW>
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     (FILE 'WPIDS' ENTERED AT 13:48:47 ON 08 FEB 1999)
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L137         642 S E3
L138          27 S L137 AND (AGA H? OR SHIBUYA T? OR FUKUDA S? OR MIYAKE
T?)/AU
L139           0 S L138 AND PULLULAN?
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L141           0 S L138 AND CYCLO DEXTRIN
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               E JP9817647/AP,PRN
L146           1 S E4
L147           1 S L145,L146
               E R06064+ALL/DCN
L148         293 S E1
L149         730 S L137,L148
L150           2 S L149 AND (B14-S08 OR C14-S08 OR D01-H01P)/MC
L151           6 SEA Q624/M0,M1,M2,M3,M4,M5,M6 AND L149
L152           7 S L150,L151
L153          27 S L149 AND (AGA H? OR SHIBUYA T? OR FUKUDA S? OR MIYAKE
T?)/AU
L154           0 S L153 AND PULLULAN
L155           4 S L153 AND ?DEXTRIN?
L156           1 S L153 AND ANTIOXID?
L157           0 S L153 AND ANTI OXID?
L158          11 S L152,L155,L156
L159          10 S L149 AND EDIB?
L160           7 S L149 AND CONSUM?
L161          17 S L159,L160
L162           1 S L161 AND PULLULAN
L163           1 S L161 AND ?DEXTRIN?
L164          13 S L162,L163,L158
L165          79 S L149 AND A61K031-70/IC,ICM
L166           2 S L165 AND L151
L167           1 S L165 AND ANTIOXID?
L168           2 S L166,L167
L169          13 S L164,L168

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L169 ANSWER 1 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 98-508303 [44] WPIDS
DNC C98-153424
TI Agent for inhibiting reduction of active-oxygen eliminating activity - comprising **trehalose**, and its use in compositions comprising plant edible substances or plant **antioxidants**.
DC B04 D13 D21
IN **AGA, H; FUKUDA, S; MIYAKE, T; SHIBUYA, T**
PA (HAYB) HAYASHIBARA SEIBUTSU KAGAKU
CYC 24
PI EP 868916 A2 981007 (9844)* EN 23 pp A61K031-70 <--
R: AL AT BE CH DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
ADT EP 868916 A2 EP 98-301575 980303
PRAI JP 98-17647 980114; JP 97-63987 970304
IC ICM **A61K031-70**
AB EP 868916 A UPAB: 981104
An agent (A) for inhibiting reduction in active-oxygen eliminating activity comprising of **trehalose** is new. Also claimed are a method of inhibiting the reduction of active-oxygen eliminating activity of a plant substance in an aqueous system by incorporating (A); and a composition obtained by incorporating (A) into a plant substance having active-oxygen eliminating activity.
USE - The compositions have at least 5 (preferably at least 10)units/g composition of active-oxygen eliminating activity (determined by the nitroblue tetrazolium test), and can be administered to impart active-oxygen eliminating activity with reduced deterioration of their quality. The compositions are useful for maintaining and promoting health; preventing aging and geriatric diseases; promoting treatment of incurable diseases; and inhibiting carcinogenesis. They may be food products, cosmetics, pharmaceuticals, or their materials or intermediates.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: B07-A02B; B14-E11; B14-H01; B14-R01; **B14-S08**; D03-H01T2

L169 ANSWER 2 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 98-437140 [37] WPIDS
DNC C98-132862
TI Pain reducing parenteral formulation comprises macrolide drug - such as clarithromycin, azithromycin, roxithromycin, etc., entrapped in liposome vesicle.
DC B03 B05 B07
IN FLOOD, K M; LIU, R; PECK, K D; ZHENG, J
PA (ABBO) ABBOTT LAB
CYC 80
PI WO 9833482 A1 980806 (9837)* EN 24 pp A61K009-127
RW: AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW
AU 9860414 A 980825 (9903) A61K009-127
ADT WO 9833482 A1 WO 98-US1430 980126; AU 9860414 A AU 98-60414 980126
FDT AU 9860414 A Based on WO 9833482
PRAI US 98-3606 980107; US 97-794064 970204
IC ICM A61K009-127

ICS A61K031-70

AB WO 9833482 A UPAB: 980916
A pain reducing parenteral formulation comprises a macrolide drug selected from erythromycin A, B, C and D; clarithromycin; azithromycin; dirithromycin; josamycin; midecamycin; kitasamycin; roxithromycin; rokitamycin; oleandomycin; miocamycin; flurithromycin; rosaramicin; 8,9-anhydro-4''-deoxy-3'-N-desmethyl -3'-N-ethylerythromycin B 6,9-hemiacetal; 8,9-anhydro-4''-deoxy-3'-N-desmethyl -3'-N-ethylerythromycin A 6,9-hemiacetal and 11-amino-11-deoxy-3-oxo-5-O-desosaminyl-6-O- [1'-3'-quinolyl-2'-propenyl]- erythronolide A 11,12-cyclic carbamate entrapped in a liposome vesicle comprising a lipid, in which at least 1 lipid is negatively charged, and the molar ratio of the drug to the lipid is 1:2 to 1:100. Also claimed is a method of reducing injection site pain caused by a macrolide drug comprising administration of a parenteral formulation comprising the macrolide drug entrapped in a liposome vesicle.

USE - The formulations are effective for reducing the pain at the injection site typically associated with the injection of macrolide antibiotics.

ADVANTAGE - The addition of a disaccharide or polysaccharide to the formulation provides instantaneous hydration and the largest surface area for depositing a thin film of the drug-lipid complex. This thin film provides for faster hydration so that, when liposome is initially formed by adding the aqueous phase, the liposomes formed are of a smaller and more uniform particle size. This provides significant advantages in terms of manufacturing ease. The packing of bilayers in the liposome vesicle is very tight with higher glass transition temperature than that of miscelles and emulsions, and, therefore, the liposome vesicle is more rigid and less dynamic than micelles and emulsions. The physical barriers created by the liposomes are effective against rapid movement of the drug from them at the injection site after such infusion, thereby reducing the concomitant pain.

Dwg.0/5

FS CPI
FA AB; DCN
MC CPI: B02-Z; B14-C01

L169 ANSWER 3 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 98-430851 [37] WPIDS
DNC C98-130000
TI **Edible** sheet for foods and medical products - contains excipients, plasticisers and binders.
DC B07 D13
PA (OSAK) OSAKA KAGAKU GOKIN KK
CYC 1
PI JP 10179045 A 980707 (9837)* 6 pp A23L001-00
ADT JP 10179045 A JP 96-357036 961225
PRAI JP 96-357036 961225
IC ICM A23L001-00
ICS A23G003-00; A23L001-30; A23P001-12; A61K031-135; A61K035-78; A61K047-10; A61K047-36; A61K047-38

AB JP10179045 A UPAB: 980916
Edible sheet contains excipients, plasticisers and binders.

The **edible** sheet preferably comprises 35-85 wt.% excipients e.g. sugar, sugar alcohol powder, starch, and/or crystalline cellulose, 10-40 wt.% plasticisers e.g. glycerine, propylene glycol, saturated aqueous solution of sugar alcohol and/or saturated aqueous solution of oligosaccharide and 1-25 wt.% binders e.g. water-soluble polysaccharide such as **pullulan**, gelatin or locust bean gum.

USE - The sheet is used as a support base for mouth melting foods and medical products such as cough cubes.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: B04-C02; D03-H01K

L169 ANSWER 4 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 98-079852 [08] WPIDS
DNC C98-026658
TI Food preserving agent which can be added at any stage - comprises mono glyceride poly carboxylic acid ester or salt thereof and further compound(s) such as organic acid, amino acid and/or sintered calcium etc..
DC D13 E17
PA (ASAM-N) ASAMA KASEI KK; (LIOY) LION CORP
CYC 1
PI JP 09206045 A 970812 (9808)* 10 pp A23L003-3517
ADT JP 09206045 A JP 96-37102 960201
PRAI JP 96-37102 960201
IC ICM A23L003-3517
AB JP09206045 A UPAB: 980223
A food preserving agent comprises (i) a monoglyceride polycarboxylic acid ester or its salt of formula R1-C(O)-O-CH2-CH(OZ1)-CH2OZ2 (1); and (ii) a compound(s) selected from (a) organic acid or its salt, (b) fatty acid ester of polyhydric alcohol, (c) amino acid, (d) antimicrobial peptide or protein, (e) polysaccharides comprising disaccharides, sugar alcohol, saccharides, sugar acid and amino saccharides and its partially decomposed matter, (f) spice, (g) its pure oil or vegetable component, (h) alcohol and (i) sintered calcium. In (1), R1= 7-17C straight or branched alkyl or alkenyl; and Z1, Z2 = one is polycarboxylic acid or the residue of its salt; the other is H or polycarboxylic acid or the residue of its salt.
USE - The product is added or mixed in any stage of the production process of the processed food.
ADVANTAGE - The product has good corrosion prevention effect. Taste and colour of the food are not damaged.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: D03-H02E; E07-A02; E10-A07; E10-B02; E10-C04; E10-E04K

L169 ANSWER 5 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 96-393036 [39] WPIDS
DNC C96-123627
TI Yoghurt with good flavour, stability with no fish smell - contains fish oil contg. highly unsatd. fatty acids, sweetener, lactic acid bacteria and Bifidobacteria.
DC B04 B05 D13
IN AKAHOSHI, R; MIZOBUCHI, T; SAITA, T; TAKAHASHI, Y; MIZOBUSHI, T
PA (HONS) YAKULT HONSHA KK
CYC 11
PI WO 9625050 A1 960822 (9639)* EN A23C009-127
RW: BE DE DK FR GB SE
W: AU KR US
JP 08214774 A 960827 (9644) 5 pp A23C009-127
AU 9646757 A 960904 (9705) A23C009-127
EP 809939 A1 971203 (9802) EN 8 pp A23C009-127
R: BE DE DK FR GB NL SE
JP 2780154 B2 980730 (9835) 5 pp A23C009-127
AU 697595 B 981008 (9901) A23C009-127

ADT WO 9625050 A1 WO 96-JP330 960215; JP 08214774 A JP 95-52067 950217; AU 9646757 A AU 96-46757 960215, WO 96-JP330 960215; EP 809939 A1 EP 96-902446 960215, WO 96-JP330 960215; JP 2780154 B2 JP 95-52067 950217; AU 697595 B AU 96-46757 960215
FDT AU 9646757 A Based on WO 9625050; EP 809939 A1 Based on WO 9625050; JP 2780154 B2 Previous Publ. JP 08214774; AU 697595 B Previous Publ. AU 9646757, Based on WO 9625050
PRAI JP 95-52067 950217
REP JP 372264; JP 690662
IC ICM A23C009-127
ICS A23C009-123; A23C009-13
AB WO 9625050 A UPAB: 961004
Yoghurt comprises 1 sweetener selected from palatinose, palatinit, maltose, maltitol, glucose, reducing glucose and **trehalose**, lactic acid bacteria and Bifidobacterium and a refined fish oil contg. highly unsatd. fatty acids such as DHA or EPA. The resulting mixt. is packed in a hermetically sealed container exhibiting oxygen barrier properties.
USE - The yoghurt contains highly unsatd. fatty acids and retains good flavour and stable quality over a generally expected storage term without giving any fishy odour.
FS CPI
FA AB; DCN
MC CPI: B04-B01C2; B04-F10; B07-A02; B10-A07; B11-C06; B12-M06; B14-E11; **B14-S08**; D03-B14

L169 ANSWER 6 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 96-059738 [07] WPIDS
DNC C96-019996
TI Non-reducing sugar prods. made from liquefied starch soln. - by treatment with combination of enzymes.
DC B03 D13 D16 D17 D21 E13
IN MANDAI, T; **MIYAKE**, T; **SHIBUYA**, T; SUGIMOTO, T
PA (HAYB) HAYASHIBARA SEIBUTSU KAGAKU
CYC 11
PI EP 691407 A1 960110 (9607)* EN 59 pp C12P019-18
R: BE CH DE ES FR GB IT LI NL
CA 2152563 A 951228 (9616) C12P019-12
JP 08073504 A 960319 (9621) 34 pp C08B037-00
ADT EP 691407 A1 EP 95-304439 950623; CA 2152563 A CA 95-2152563 950623; JP 08073504 A JP 95-116583 950419
PRAI JP 95-116583 950419; JP 94-165815 940627
REP 01Jnl.Ref ; JP 63216492; WO 9203565; WO 9207947
IC ICM C08B037-00; C12P019-12; C12P019-18
ICS A23L001-09; A23L001-22; A23L001-236; A61K007-00; A61K031-70; A61K047-26; A61K047-36; C07H003-04; C07H003-06; C12P019-00; C12P019-16; C12P019-22
ICA A23L001-307
AB EP 691407 A UPAB: 960222
The following are claimed: (1) a non-reducing saccharide obtainable by treating a liquefied starch soln. with a combination of (a) a non-reducing sugar-forming enzyme and opt. a **trehalose**-releasing enzyme and (b) a starch-debranching enzyme and/or **cyclomaltodextrin** glucanotransferase; (2) a ''less reducing saccharide'' which contains the saccharide of (1); (3) a process for producing the saccharide of (1) or (2), comprising treating a liquefied starch soln. with a combination of (a) a non-reducing-sugar-forming enzyme and opt. a **trehalose** -releasing enzyme and (b) a starch-debranching enzyme and/or **cyclomaltodextrin** glucanotransferase; (4) a process as above where

the prod. is opt. treated with beta-amylase, glucoamylase or alpha-glucosidase and is fractionated by column chromatography; and (5) a compsn. (a food product, cosmetic or medicine) contg. the saccharide of (1) or (2).

USE - The saccharides can be used, e.g. as sweeteners, flavour enhancers, taste maskers, stabilisers, excipients, fillers and diluents in foods, tobacco prods., animal feeds, cosmetics and pharmaceutical prods.

ADVANTAGE - The saccharides have a mild sweetness, have good handling properties (e.g. as syrups or powders), and do not undergo significant Maillard reaction with amino acids or proteins.

Dwg.0/17

FS CPI
FA AB; DCN
MC CPI: B07-A02; B14-E11; D03-G01; D03-H01A; D03-H01C; D03-H01H; D03-H01L; D03-H01Q; D05-A02C; D06-H01; D07-C; D08-B11; E07-A02D; E07-A02H; E10-A07

L169 ANSWER 7 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 96-051264 [06] WPIDS
DNC C96-016888
TI Saccharide compsns. with low dextrose equiv. - contg. sugar alcohol and non-reducing sugar.
DC B03 B07 D13 D16 D18 D21 E13
IN **MIYAKE, T; SHIBUYA, T**; SUGIMOTO, T
PA (HAYB) HAYASHIBARA SEIBUTSU KAGAKU
CYC 17
PI EP 690130 A1 960103 (9606)* EN 62 pp C12P019-12
R: AT BE CH DE DK ES FR GB IT LI MC NL PT SE
BR 9502955 A 960312 (9616) C07H003-04
JP 08073482 A 960319 (9621) 33 pp C07H003-06
US 5681826 A 971028 (9749) 41 pp A61K031-715
US 5789392 A 980804 (9838) A61K031-715
ADT EP 690130 A1 EP 95-304438 950623; BR 9502955 A BR 95-2955 950627; JP 08073482 A JP 95-182216 950627; US 5681826 A US 95-492691 950620; US 5789392 A Div ex US 95-492691 950620, US 97-883079 970626
FDT US 5789392 A Div ex US 5681826
PRAI JP 94-180393 940627
REP 01Jnl.Ref ; EP 532807; EP 606753; JP 63216492; WO 9203565
IC ICM A61K031-715; C07H003-04; C07H003-06; C12P019-12
ICS A23L001-09; A23L001-22; A23L001-236; A61K007-00; A61K031-70; A61K047-26; A61K047-36; C07H001-00; C08B037-00; C12P019-00; C12P019-14; C12P019-18
AB EP 690130 A UPAB: 960212
Saccharide compsns. with a low dextrose equivalent (DE) comprises a sugar alcohol (I) and a non-reducing sugar (II) selected from **trehalose** and **trehalose**-contg. sugars.

Also claimed are: (A) Prodn. of a compsn. as above by hydrogenating a mixt. of a starch-derived reducing sugar (III) and (II). (B) Process as above where the mixt. of (III) and (II) is prepd. by treating a liquefied starch soln. with a combination of, (a) a (I)-forming enzyme and opt. a **trehalose**-releasing enzyme; and (b) a starch-debranching enzyme and/or **cyclomaltodextrin** glucanotransferase. (C) Method for 'reducing the reducibility of a saccharide mixture with a reduced reducibility' which includes the step of hydrogenating a mixt. of (III) and (II).

(I) is **trehalose** of a sugar with a terminal or internal **trehalose** unit. (III) is glucose, maltose, maltotriose, maltotetraose and/or maltopentaose.

USE - The compsns. can be used as sweeteners, flavour enhancers,

stabilisers, excipients, fillers and diluents in foods, tobacco prods., animal feeds, cosmetics, pharmaceutical prods., etc..

ADVANTAGE - The process converts (III) to (I) without affecting (II), giving prods. with DE <1. The prods. have a mild sweetness and good handling properties (e.g. as low viscosity syrups or powders), and do not undergo significant Maillard reaction with amino acids or proteins.

Dwg.0/17

FS CPI

FA AB; DCN

MC CPI: B07-A02B; B10-A07; B14-E11; D03-G01; D03-H01A; D03-H01Q; D05-C03; D05-C08; D06-H; D07-C; D08-B; E07-A02D; E07-A02H; E10-A07

L169 ANSWER 8 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD

AN 95-303538 [40] WPIDS

DNC C95-135806

TI Crystalline maltosyl glucoside - useful as sweetener and preservative for foodstuffs, pharmaceuticals and cosmetics.

DC B03 D13 D16 D21 E13

IN **MIYAKE**, T; **SHIBUYA**, T; SUGIMOTO, T; TABUCHI, A

PA (HAYB) HAYASHIBARA SEIBUTSU KAGAKU

CYC 4

PI EP 670326 A2 950906 (9540)* EN 30 pp C07H003-06
R: DE FR GB
JP 07291986 A 951107 (9602) 19 pp C07H003-06
EP 670326 A3 951018 (9616) C07H003-06

ADT EP 670326 A2 EP 95-301284 950228; JP 07291986 A JP 95-65261 950301; EP 670326 A3 EP 95-301284 950228

PRAI JP 94-54369 940301

REP No-SR.Pub ; 2.Jnl.Ref ; EP 480640; EP 606753

IC ICM C07H003-06
ICS C07H001-00; C12P019-04; C12P019-14; C12P019-18

AB EP 670326 A UPAB: 951011

Crystalline maltosyl glucoside (I) is new.

(I) is obtd. by (a) crystallising a soln. contg. maltosyl glucoside and collecting the crystal, or (b) treating an aq. soln. of maltosyl glucoside with alkali, subjecting it to column chromatography, and crystallising the resultant conc. fractions.

The maltosyl glucoside is obtd. by exposing (a) an aq. soln. contg. **trehalose** and an alpha-glucosyl saccharide to the action of a saccharide-transferring enzyme (II) or (b) a reducing partial starch hydrolysate to the action of a non-reducing saccharide-forming enzyme (III). Treatment with a hydrolase may follow (a) or (b).

(II) is pref. **cyclomaltodextrin** glucanotransferase, alpha-amylase, alpha-glucosidase or mixts..

(III) is capable of producing a non-reducing saccharide with a **trehalose** end-unit.

The hydrolysate has a glucose polymerisation degree of 3 or higher and the opt. hydrolase is beta-amylase or a mixt. of beta-amylase and a starch-debranching enzyme.

USE - (I) is useful as a sweetener and preservative in the prepn. of foods, beverages, pet foods, cosmetics and pharmaceuticals, e.g. lipstick, cigarette, tobacco, dentifrice, oral refreshing agent and gargle.

(I) may also be used as a stabiliser, osmosis controller, vehicle, moisture controller, viscosity controller and quality improver in the prodn. of cosmetics, e.g. soap. skin cream, body shampoo, hair cream, lip cream and hair restorer.

ADVANTAGE - (I) is non-hygroscopic and free-flowing, readily handleable with less viscosity and solidification, which reduces costs necessary for controlling its package, transportation and storage.

Dwg.0/8
FS CPI
FA AB; DCN
MC CPI: B04-C02X; B12-M06; D03-G01; D03-H01A; D05-A02C; D08-B03; D08-B08; D08-B09A; D08-B11; E07-A02H

L169 ANSWER 9 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 94-346187 [43] WPIDS
DNC C94-157183
TI Isolation of **trehalose** by alcohol crystallisation - to give high purity **trehalose** useful as cell activity maintaining agent, anti-coldness agent and anitfreeze agent in medicines and foods.
DC B03 D13 D16 E13 G04
PA (AJIN) AJINOMOTO KK
CYC 1
PI JP 06269288 A 940927 (9443)* 5 pp C12P019-12
ADT JP 06269288 A JP 93-15615 930202
PRAI JP 93-15615 930202
IC ICM C12P019-12
ICS C07H001-08; C07H003-04
AB JP06269288 A UPAB: 941216
Crystallisation of **trehalose** comprises adding aq. **trehalose** and alcohol simultaneously in proportional amts.
USE/ADVANTAGE - **Trehalose** is useful as cell activity maintaining agent, anticoldness agent and antifreeze agent in medicines and foods. This method easily gives **trehalose** with high purity.
In an example, fermentation broth (protein concn. 2.0%) (approx. 2.2l) contg. **trehalose** (88g, as **trehalose** dihydrate) was centrifuged to separate the bacterial body (pH 7.8). Cation exchange resin column (2l) and anion exchange resin column (5l) were connected in series and the broth except the bacterial body was passed through the columns to give the desalted solution (5l). The soln. was treated with ultrafiltration (mol. wt. fraction 3000) to give the transmitted soln. (10l, protein concn. was not more than 0.01%). The soln. was conc. to give the conc. soln. (180 ml) contg. **trehalose** 35g/dl. 80% ethyl alcohol (50ml) was stirred at 40 deg. C. To it the conc. **trehalose** solution (180ml) and 100% ethyl alcohol (720ml) was simultaneously added at 50 ml/h and 200 ml/h, respectively. After approx. 30 min., soon after the soln. became cloudy, powdered **trehalose** dihydrate (approx. 0.5g) was added as seed crystal, and the addition was carried out for 3.6h. Then the mixt. was cooled to 5 deg. C by 5 deg. C/h. The crystal was sepd. by centrifugation and dried under reduced pressure at 40 deg. C for 15h to give **trehalose** dihydrate (78g) as crystal (99.5% purity).
Dwg.0/1
FS CPI
FA AB; GI; DCN
MC CPI: B07-A02B; B12-M06; D03-H01; D05-B; D05-C08; D05-H01; E07-A02; E11-Q01; G04-B01

L169 ANSWER 10 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 94-341854 [42] WPIDS
DNC C94-155777
TI Solid, stabilised collagenase compsn. - is lyophilisate contg. e.g. albumin as stabiliser, with good activity retention during storage, for treating burns and ulcers, and for dissociating connective tissue.
DC B04 D16
IN DINH, T T; HORNACEK, C; LEE, C
PA (BAXT) BAXTER INT INC
CYC 18

PI WO 9424273 A1 941027 (9442)* 27 pp C12N009-96
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
W: CA JP
ADT WO 9424273 A1 WO 94-US4082 940413
PRAI US 93-49016 930416
IC ICM C12N009-96
ICS A61K037-54; C12N009-52
AB WO 9424273 A UPAB: 941212
Solid, stabilised collagenase compsn. (A) is made by lyophilising a mixt. of collagenase (I) and stabiliser (II).
(A) is used (1) for dissociation of connective tissue, partic. in vitro for dispersing cells in tissue cultures and (2) for treating burns and ulcers.
(A) retains high levels of hydrolytic activity and solubility even after lyophilisation and long term storage, so provides a consistent level of specific activity.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: B04-L05C; B04-N02; B12-M06; B14-E08; B14-N17A; D05-H08; D05-H13

L169 ANSWER 11 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 94-169894 [21] WPIDS
CR 95-216784 [29]
DNC C94-077641
TI Prodn. of saccharide carboxylic acid by oxidising sugar with Pseudo-gluconobacter - including new cpds. useful as sweeteners, clathrating agents for drugs, anticancer agents, etc. of good water solubility and stability against enzymes.
DC B03 B04 B05 C03 D13 D16 D21 E13
IN ISHIGURO, T; NOGAMI, I; OKA, M; YAMAGUCHI, T; NAKAGAWA, Y; UDA, Y; YAMAUCHI, T
PA (TAKE) TAKEDA CHEM IND LTD; (TAKE) TAKEDA PHARM IND CO LTD
CYC 24
PI EP 599646 A2 940601 (9421)* EN 44 pp C12P019-02
R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE
AU 9351948 A 940630 (9430) C07H007-033
CA 2110111 A 940528 (9431) C12P019-00
NZ 250284 A 940927 (9438) C12P019-00
JP 07076594 A 950320 (9520) 28 pp C07H007-033
US 5434061 A 950718 (9534) 30 pp C12P019-22
EP 599646 A3 950419 (9545) C12P019-02
AU 666234 B 960201 (9612) C07H007-033
TW 293036 A 961211 (9714) C07H013-02
CN 1093407 A 941012 (9717) C12P007-58
US 5629411 A 970513 (9725) 17 pp C07H015-24
US 5635610 A 970603 (9728) 29 pp C07H003-00
US 5635611 A 970603 (9728) 29 pp C07H003-00
SG 48777 A1 980518 (9834) C12P019-02
US 5840881 A 981124 (9903) C08B037-16
ADT EP 599646 A2 EP 93-309412 931125; AU 9351948 A AU 93-51948 931125; CA 2110111 A CA 93-2110111 931126; NZ 250284 A NZ 93-250284 931125; JP 07076594 A JP 93-288284 931117; US 5434061 A US 93-152122 931115; EP 599646 A3 EP 93-309412 931125; AU 666234 B AU 93-51948 931125; TW 293036 A TW 93-109415 931110; CN 1093407 A CN 93-114961 931126; US 5629411 A Div ex US 93-152122 931115, US 95-419393 950410; US 5635610 A Div ex US 93-152122 931115, US 95-419394 950410; US 5635611 A Div ex US 93-152122 931115, US 95-419397 950410; SG 48777 A1 SG 96-1582 931125; US 5840881 A CIP of US 93-152122 931115, CIP of US 94-353326 941205, US 95-437227 950508

FDT AU 666234 B Previous Publ. AU 9351948; US 5629411 A Div ex US 5434061; US 5635610 A Div ex US 5434061; US 5635611 A Div ex US 5434061; US 5840881 A CIP of US 5434061
PRAI JP 93-173121 930713; JP 92-318807 921127; JP 93-50652 930311; JP 93-305597 931206
REP No-SR.Pub ; EP 150085; EP 221707; EP 295861; EP 51707
IC ICM C07H003-00; C07H007-033; C07H013-02; C07H015-24; C08B037-16; C12P007-58; C12P019-00; C12P019-02; C12P019-22
ICS C07H005-00; C07H013-12; C07H015-00; C07H015-12; C07H015-22; C07H015-256; C07H017-04; C07H019-04; C07J017-00; C08B015-02; C08B031-18; C08B037-00; C08B037-02; C12N001-20; C12P019-04; C12P019-12; C12P019-14; C12P019-56
ICA A23L001-236; A61K031-70
ICI C12P019:00, C12R001:01; C12P019-00, C12R001:01; C12P019-00, C12R001:01; C12P019-00, C12R001:01; C12P019-56, C12R001:01
AB EP 599646 A UPAB: 990122
Prodn. of saccharide carboxylic acid (A), or its salts, comprises treating a hydroxymethyl and/or hemiacetal OH-contg. monosaccharide deriv., oligo- or poly-saccharide (or derivs.) with a Pseudogluconobacter microorganism (or derived cell preparation) able to oxidise hydroxymethyl and/or hemiacetal OH-attached C to COOH.

Also new are (1) (A) produced by oxidising at least 1 CH2OH gp. of palatinose; D-**trehalose**; maltosyl-beta- cyclodextrin; 2-O-alpha-D-glucopyranosyl-L-ascorbic acid, streptozotocin; heptulose; maltodextrins (I); steviol glycosides (II); validamycin A; mogroside or dextran (including complexes of the acid with a metal salt) or by oxidn. of at least 1 hemiacetal OH-attached C (including complexes of the acid with a metal salt) and (2) prodn. of dextranyl-glucuronic acid-Fe hydroxide complex (III) by reacting dextranyl glucuronic acid with Fe hydroxide sol.

R1 = beta-Glc-2-beta-Glc; beta-Glc(3-beta-Glc)-2-beta-Glc; beta-Glc-2-alpha-Rha; beta-Glc or -beta-Glc(3-beta-Glc)-2-alpha-Rha; R2 = beta-Glc or beta-Glc-2-beta-Glc.

USE/ADVANTAGE - (III), and similar Fe derivs. of dextran carboxylic acid, are useful in Fe supplementation (anti-anaemics) in animals. (A) derived from stevioside glycosides and some other sugars are intense sweeteners (useful in low calorie foods, beverages, etc. and for improving palatability of drugs); those from maltosyl beta-cyclodextrins from clathrates of good water solubility with e.g. prostaglandins, salts of some (A) with Ca, Mg and Fe can be used to improve absorption of these ions (e.g. for preventing osteoporosis); (A) from **trehalose** are humectants and stabilisers for antibodies; those from D-glucosamine are high moisture retention cosmetic bases, those from nucleosides are flavourings; those from streptozotocin are anticancer and antimicrobial agents; those from Validamycin are agricultural fungicides and those from ascorbic acid are antioxidants. P. saccharoketogenes oxidises a wide range of substrates to (A) with good yield and selectivity. Compared with the sugar starting materials (A) have better solubility, lower toxicity and better resistance to enzymes. They also have good disintegratability and biodegradation.

Dwg.0/14
FS CPI
FA AB; DCN
MC CPI: B02-V; C02-V; B03-F; C03-F; B04-C02; C04-C02; B04-C02C; C04-C02C; D03-G01; D03-H01G; D03-H01P; D03-H01T3; D05-C02; D05-C09; D05-H11; D08-B10; E05-L02A; E07-A02H

L169 ANSWER 12 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 93-274642 [35] WPIDS

DNC C93-122467
TI Prepn. of neo-**trehalose** used as a sweetener, taste-improver and stabiliser - comprises treating amylaceous substance in soln. with alpha amylase.
DC B03 B07 D13 D16 D17 D18 D21 E13
IN CHAEN, H; **MIYAKE, T**; SAKAI, S; **SHIBUYA, T**
PA (HAYB) HAYASHIBARA SEIBUTSU KAGAKU
CYC 8
PI EP 558213 A1 930901 (9335)* EN 16 pp C12P019-12
R: DE FR GB IT
JP 05252973 A 931005 (9344) 10 pp C12P019-14
CA 2089241 A 930826 (9346) C12P019-14
EP 558213 B1 960626 (9630) EN 16 pp C12P019-12
R: DE FR GB IT
DE 69303302 E 960801 (9636) C12P019-12
US 5578469 A 961126 (9702) 11 pp C12P001-04
TW 336954 A 980721 (9848) C12P019-12
ADT EP 558213 A1 EP 93-301059 930215; JP 05252973 A JP 92-93936 920225; CA 2089241 A CA 93-2089241 930210; EP 558213 B1 EP 93-301059 930215; DE 69303302 E DE 93-603302 930215, EP 93-301059 930215; US 5578469 A US 93-22340 930224; TW 336954 A TW 93-100963 930211
FDT DE 69303302 E Based on EP 558213
PRAI JP 92-93936 920225
REP 2.Jnl.Ref
IC ICM C12P001-04; C12P019-12; C12P019-14
ICS A23C009-13; A23C009-152; A23G001-00; A23G003-00; A61K038-43; A61K038-46
AB EP 558213 A UPAB: 931119
Prepn. of neotrehalose comprises (a) allowing alpha-amylase to act on an amylasceous substance in a soln. to form neotrehalose; and (b) recovering the neotrehalose.
Also claimed, is a compsn. in which the resultant neotrehalose is incorporated in a prod..
USE/ADVANTAGE - The neotrehalose has chemical stability as well as other advantageous properties such as sweetness, energy-imparting ability, osmosis-regulating ability, filler-imparting ability, gloss imparting ability, moisture-retaining ability, viscosity-imparting ability, crystallisation preventing ability and non-fermentability. Because of these properties neotrehalose can be advantageously used as a sweetener, taste-improving agents, quality-improving agents and stabiliser in compsns. such as food prods., tobaccos, cigarettes, feeds, pet foods, cosmetics and pharmaceuticals. In the latter neotrehalose can supplement energy to living cells.
Dwg.0/2
FS CPI
FA AB; DCN
MC CPI: B07-A02; B12-J01; D03-H01A; D03-H01Q; D05-A02C; D05-C08; D06-H; D07-C; D08-B11; E07-A02H

L169 ANSWER 13 OF 13 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 84-240634 [39] WPIDS
DNC C84-101610
TI Vinegar prodn. by submerged cultivation - of alcohol-contg. medium or malt medium contg. specified ratio of unfermentable to fermentable sugar.
DC D13 D16
PA (QPPP) KEWPIE JYOZO KK; (QPPP) QP CORP; (TOSH-N) TOSHOKU LTD
CYC 1
PI JP 59143583 A 840817 (8439)* 6 pp
JP 04059874 B 920924 (9243) 6 pp C12J001-04

ADT JP 59143583 A JP 83-17459 830207; JP 04059874 B JP 83-17459 830207
FDT JP 04059874 B Based on JP 59143583
PRAI JP 83-17459 830207
IC ICM C12J001-04
AB JP59143583 A UPAB: 930925
Method comprises fermenting a culture medium contg. alcohol or a malt-medium by submerged culture. The acidity of amino acid and wt. ratio of unfermentable sugar to fermentable sugar in the medium is adjusted to above 2.0 and less than 0.6, respectively.
The culture medium, contains 0-3 % acetic acid and 4-12 % alcohol. In the determn. of the acidity of aminoacid, a sample of the culture medium 10 ml, is neutralised with 1 N sodium hydroxide, neutral formaldehyde 5 ml, is added and titrated with 1/10 N sodium hydroxide. The acidity of amino acid=(the volume of titrant consumed) x (factor). Examples of fermentable sugars are glucose, fructose, maltrose, sucrose, and almtotriose, and those of unfermentable sugars are galactose, trehalose, maltotetraose, and dextrin.
ADVANTAGE - Method suppresses foaming of culture medium, and affords vinegar of good flavour and taste.
0/0
FS CPI
FA AB
MC CPI: D05-C09; D05-G

=> d his l170-

(FILE 'WPIDS' ENTERED AT 14:05:02 ON 08 FEB 1999)
L170 22 S L149 AND VEGET?
L171 21 S L170 NOT L169

=> d all tot

L171 ANSWER 1 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 98-393775 [34] WPIDS
DNC C98-119628
TI Cleaner compsn. for food. - contains mixture of capric mono glyceride and sucrose fatty carboxylate, builder, hydrotrope and saccharide.
DC D25 E19
PA (DAII) DAIICHI KOGYO SEIYAKU CO LTD
CYC 1
PI JP 10158690 A 980616 (9834)* 5 pp C11D001-66
ADT JP 10158690 A JP 96-321405 961202
PRAI JP 96-321405 961202
IC ICM C11D001-66
ICS C11D003-20; C11D003-22
AB JP10158690 A UPAB: 980826
The compsn. contains 2-10 wt. % the mixt. of capric mono-glyceride and sucrose 12-18C fatty carboxylate, 1-20 wt. % builder, 20-40 wt. % hydrotrope and 20-50 wt. % saccharide.
USE - The cleaner is used for vegetables, fruits, marine foods, cooking utensils, dishes, food processing equipments and food production machines.
ADVANTAGE - The compsn. shows the low toxicity, the high detergency and the improved storage stability at the wide range of temp..
Dwg.0/0
FS CPI
FA AB; DCN

MC CPI: D11-A03A; D11-B03; D11-D01A; D11-D01B; E07-A02A; E10-E04G

L171 ANSWER 2 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 98-163769 [15] WPIDS
DNC C98-052935
TI Aqueous liquid cleaner product for cooking utensils - containing permeation volatilisation preventive obtained from telomers of linear or cyclic polyhydric alcohol.
DC A97 D25 E19
PA (LIOY) LION CORP
CYC 1
PI JP 10030100 A 980203 (9815)* 11 pp C11D017-08
ADT JP 10030100 A JP 96-295785 961017
PRAI JP 96-145047 960515
IC ICM C11D017-08
ICS C11D003-20; C11D017-04
AB JP10030100 A UPAB: 980410
The cleaning composition contains 0.1-10 wt.% of at least one or more permeation volatilisation preventive(s) chosen from the monomers or telomers of linear or cyclic polyhydric alcohol containing 2-6 OH groups, filled in a plastic bottle with a thickness of 150-220 microns.
USE - Used in aqueous liquid cleaners for **vegetables**, fruit, tableware and cooking utensils.
ADVANTAGE - The polyhydric preventive lowers the permeable and volatile loss of the components in the composition filled in the thin wall plastic bottle.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: A12-P06A; D11-D01A; D11-D07; E10-A07; E10-E04H; E10-E04J

L171 ANSWER 3 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 97-539636 [50] WPIDS
DNC C97-172785
TI Preserving freshness of cut **vegetables** - comprises contacting cut **vegetables** with aqueous solution containing ethyl alcohol, **trehalose** and vitamin-C.
DC D13
PA (HAYB) HAYASHIBARA SEIBUTSU KAGAKU; (KYOK-N) KYOKUTO INT KK
CYC 1
PI JP 09224565 A 970902 (9750)* 4 pp A23B007-153
ADT JP 09224565 A JP 96-37636 960226
PRAI JP 96-37636 960226
IC ICM A23B007-153
AB JP09224565 A UPAB: 971217
Preserving freshness of cut **vegetables** comprises contacting cut **vegetables** with an aqueous solution containing 0.8-1.5 wt.% ethyl alcohol, 0.1-5 wt.% **trehalose** and 0.005-0.3 wt.% vitamin C.
ADVANTAGE - Cut **vegetables** are economically and easily preserved for at least 5 days.
Dwg.0/0
FS CPI
FA AB
MC CPI: D03-H02E

L171 ANSWER 4 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 97-530102 [49] WPIDS
DNC C97-168860
TI Freshness-keeping agent for cut **vegetables** and fruits -

comprises water diluted mixture of ethyl alcohol, **trehalose** and vitamin-C.

DC D13
PA (HAYB) HAYASHIBARA SEIBUTSU KAGAKU; (KYOK-N) KYOKUTO INT KK
CYC 1
PI JP 09252719 A 970930 (9749)* 5 pp A23B007-153
ADT JP 09252719 A JP 96-64161 960321
PRAI JP 96-64161 960321
IC ICM A23B007-153
AB JP09252719 A UPAB: 971211
Cut **vegetables** and fruit are contacted with a water-diluted mixture of:
(i) 20-62(w/w)% ethyl alcohol,
(ii) 2.5-20% **trehalose**,
(iii) 0.1-0.5% vitamin C, and
(iv) water by immersion, etc.
USE - Used to reduce the cost of maintenance of the freshness.
ADVANTAGE - The agent is easily handled and used, and can maintain the freshness for 5 days or longer.
Dwg.0/0
FS CPI
FA AB
MC CPI: D03-A04; D03-H02E

L171 ANSWER 5 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 97-444036 [41] WPIDS
DNC C97-141813
TI Insect pest attractant - comprises gel composition containing cellulose especially useful against cockroaches.
DC C03
PA (EART) EARTH SEIYAKU KK
CYC 1
PI JP 09202701 A 970805 (9741)* 6 pp A01N025-04
ADT JP 09202701 A JP 96-10159 960124
PRAI JP 96-10159 960124
IC ICM A01N025-04
ICS A01N025-10; A01N059-14
AB JP09202701 A UPAB: 971013
Insect pest attractant comprises a gel composition having a sugar degree of 50-80 % for the whole of gel composition and containing cellulose.
Also claimed is cockroach attractant which comprises a gel composition having a sugar degree of 50-80 % for the whole of gel composition and containing cellulose.
Cockroaches inhibitor containing cockroaches attractant and cockroaches inhibiting component. The sugar content to be contained is fruit juice, honey, molasses, maltitose, sucrose, sugar cane, palatinose and **trehalose**. The sugar degree is 50-80 %, preferably 60-80 %, more preferably 70-80 %. Gelling agent is pectin, agar, gelatin, gelatin gum, and sodium alginate. Amount of the gelling agent to be added is 0.1-30 wt. % in case of agar. Cellulose is rice powder, wheat powder, sweet potato powder, **vegetable** powder, etc. Amount of the cellulose to be added is 0.1-10 wt. %, preferably 0.5-5 wt. %.
USE - The composition is useful as an insect pest attractant, especially cockroaches attractant.
ADVANTAGE - The composition provides excellent attractive effect against insect pest, especially cockroaches.
In an example, Formulation No. 1 (sugar 50 wt. %, sweet potato powder 3 wt. %, curdlan (sic) 3 wt. %): (sugar degree 55 %); Formulation No. 2 (millet jelly 70 wt. %, sweet potato powder 3 wt. %, collagen (sic) 3 wt.

%): (sugar degree 65 %).
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: C04-C02A; C04-C02D; C04-N02; C07-A02B; C10-A07; C14-B06

L171 ANSWER 6 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 96-487162 [49] WPIDS
DNC C96-152636
TI High **trehalose** content syrup free of crystallisation - contg. other dissolved saccharide(s), used in food prods., tobacco, cosmetics and pharmaceuticals.
DC B03 D13 D16 D21 E13
IN MIYAKE, T; OKADA, K; SHIBUYA, T
PA (HAYB) HAYASHIBARA SEIBUTSU KAGAKU
CYC 4
PI EP 739986 A1 961030 (9649)* EN 19 pp C12P019-12
R: DE FR GB
JP 08336363 A 961224 (9710) 12 pp A23L001-09
ADT EP 739986 A1 EP 96-302590 960412; JP 08336363 A JP 96-112159 960410
PRAI JP 95-110291 950412
REP 1.Jnl.Ref ; EP 704531; JP 62257346
IC ICM A23L001-09; C12P019-12
ICS A23L003-00; C07H001-08; C07H003-04; C12N009-90; C13K013-00
ICA A21D002-18; A23C009-13; A23F005-24; A23G003-00; A23L001-06; A23L001-19; A23L001-20; A23L001-31; A23L001-337; A61K007-00; A61K007-16; A61K007-42; A61K007-48; A61K009-06; A61K047-26
AB EP 739986 A UPAB: 961205
High **trehalose** content syrup free of crystallisation comprises **trehalose** dissolved in an amt. of above its water solubility and other dissolved saccharide(s). Also claimed is a compsn. comprising 0.5 w/w% of the above syrup contg. the other saccharide(s) in at least the same amt. of the **trehalose**.

USE - The syrup is used as a sweetener, taste improving agent, quality improving agent, stabiliser and filler in food prods., animal feeds, pet foods, cosmetics, pharmaceuticals, tobaccos, cigarettes, dentifrices, cod liver oils in the form of a drop and troches. The syrup is pref. used in Japanese and western confectionery, processed meat, fruit and **vegetables** and soft drinks.

ADVANTAGE - The syrup is easily handled and free of crystallisation at <10deg.C. The syrup has a lower DE than conventional starch sugars, pref. a DE of C50 and has relatively low viscosity and high sweetening power. The syrup has osmotic controlling, filler imparting, gloss imparting, moisture retaining, viscosity imparting, and crystallisation preventing activity for other saccharides, non-fermentability and retrogradation preventing activity. The syrup mixes well with other materials having sour-, acid-, salty-, bitter-, astringent- and good-taste and has high acid and heat tolerance. The syrup is free of bacterial contamination at ambient temp., stable and may be stored in tanks and transported by pumps and tank trucks. The syrup does not require a dissolving step.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: B07-A02B; B14-E11; B14-R01; D03-G01; D03-H01A; D05-A01A1; D05-C08; D07-D; D08-B; E07-A02H

L171 ANSWER 7 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 96-078603 [09] WPIDS

DNC C96-026106
TI Prepn. of the saccharide **trehalose** - using a maltose-**trehalose** conversion enzyme derived from microorganisms.
DC B03 D13 D16 D17 D21 E13
IN CHAEN, H; MIYAKE, T; NISHOMOTO, T; SUGIMOTO, T; NISHIMOTO, T
PA (HAYB) HAYASHIBARA SEIBUTSU KAGAKU
CYC 5
PI EP 693558 A1 960124 (9609)* EN 49 pp C12P019-12
R: DE FR GB
JP 09009986 A 970114 (9712) 29 pp C12P019-16
US 5747300 A 980505 (9825) C12P019-04
US 5759610 A 980602 (9829) C12P019-12
ADT EP 693558 A1 EP 95-304991 950718; JP 09009986 A JP 95-204033 950719; US 5747300 A Div ex US 95-503426 950717, US 96-620172 960322; US 5759610 A Cont of US 95-503426 950717, US 97-815679 970312
PRAI JP 95-120387 950424; JP 94-187901 940719
REP EP 532807; EP 555540; EP 606753; FR 2671099
IC ICM C12P019-04; C12P019-12; C12P019-16
ICS A23G003-00; A23L001-09; A23L001-236; A61K007-00; A61K031-70; C07H003-00; C07H003-04; C12N009-24; C12P019-18; C12P019-20
ICI C12P019-12, C12R001:36
AB EP 693558 A UPAB: 960305
New method of obtaining **trehalose** (T) or a saccharide contg. it in which a microorganism that produces maltose/**trehalose** conversion enzyme is cultured in a nutrient culture medium. Also claimed are: (i) a process for producing and collecting (T); and (ii) a compsn. contg. (T).
USE - (T) prevents browning and deterioration of substances as it is a non-reducing saccharide. As such it may be used as a coating agent for tablets in combination with binders. It may be used as a sweetener alone or in conjunction with other sweeteners and/or fillers in, e.g. biscuits, chocolate, sponge cakes, syrups, jams, preserved fruits and **vegetables**, dairy prods. and alcoholic and soft drinks. (T) may be used to improve the taste quality of animal feeds and also be used in toiletries and cosmetics such as dentifrice and medicines as a quality improver or stabiliser for e.g. vaccines and antibiotics.
ADVANTAGE - The process results in increased yield of (T) making it suitable for use in industrial scale prodn.
Dwg.0/12
FS CPI
FA AB; DCN
MC CPI: B07-A02; B10-A07; B14-R01; D03-A; D03-B; D03-E07; D03-G; D03-H; D03-H01A; D03-H01S; D03-H02; D05-E; D05-H07; D06-H; D06-H01; D08-A; D08-B; D08-B08; D08-B11; E07-A02H

L171 ANSWER 8 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 95-366648 [48] WPIDS
DNC C95-159599
TI Protective compsn. for cells, animal and **vegetable** tissues and cosmetic prepn. - contg. trealose di saccharide.
DC B03 C02 D16 D21 E13
IN PANEK, A D
PA (UYRI-N) UNIV RIO DE JANEIRO
CYC 1
PI BR 9400068 A 950926 (9548)* 1 pp C12N001-16
ADT BR 9400068 A BR 94-68 940111
PRAI BR 94-68 940111
IC ICM C12N001-16
ICS A01N001-02; A61K007-48; C12N005-04; C12N005-06

AB BR 9400068 A UPAB: 960108
Protective compsns. are based on the disaccharide trealose, widely used in fermentation processes, biomass prodn. and medical, pharmaceutical, agricultural and cosmetic research.
USE - The compsns. are useful for the protection and maintenance of human tissues.
ADVANTAGE - Cell viability and integrity is maintained under stress, e.g. thermal and osmotic shock, freezing, dehydration and prolonged exposure to alcohol.
Dwg.0/1
FS CPI
FA AB; DCN
MC CPI: B07-A02B; C07-A02B; D05-C13; D05-H01; D05-H08; D08-B; E07-A02H

L171 ANSWER 9 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 95-139974 [19] WPIDS
DNC C95-064686
TI Prepn. of saccharomyces cerevisiae bacteria - has glycine addn. protecting **vegetables** against extreme temp. after extraction. of tri chloro acetic acid.
DC B04 C06 D16
IN MARTINS, MELEIRO C R; PANEK, A D; PASCHOALIN, V M F
PA (UYRI-N) UNIV RIO DE JANEIRO
CYC 1
PI BR 9303490 A 950328 (9519)* 1 pp C12P009-12
ADT BR 9303490 A BR 93-3490 930826
PRAI BR 93-3490 930826
IC ICM C12P009-12
ICS C12R001-865
AB BR 9303490 A UPAB: 950524
The preparation of Saccharomyces cerevisiae bacteria comprises refining of bacterial disaccharide accumulated intracellularly by cells of Saccharomyces cerevisiae. Glycose addition and heat treatment at 40 o.C of the cells of stock 50613 has extraction by 0.5 M trichloroacetic acid.
USE - In industry, research agriculture medicine, etc.
ADVANTAGE - The product acts as an osmosis regulator and permits conservation of transplant organs.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: B04-F09C; C04-F09C; B04-L01; C04-L01; B12-M06; C12-M06; D05-H04

L171 ANSWER 10 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 94-299626 [37] WPIDS
DNC C94-136527
TI Freshness preservatives for cut flowers and leafy **vegetables** - comprising aq. soln. or powder of **trehalose** blended with fungicides, amino acids pref. norleucine, nutrients or growth regulators.
DC E13 G04
PA (AJIN) AJINOMOTO KK
CYC 1
PI JP 06227904 A 940816 (9437)* 5 pp A01N003-02
ADT JP 06227904 A JP 93-12132 930128
PRAI JP 93-12132 930128
IC ICM A01N003-02
AB JP06227904 A UPAB: 941109
Preservatives contain **trehalose** as an active ingredient.
The preservatives are applied by immersing the cut ends of flowers in an aq. soln. contg. **trehalose**, spraying the aq. soln. contg.

trehalose onto cut flowers or immersing or spraying leafy vegetables in the aq. soln. contg. trehalose.
Concentration of trehalose is 0.001-3 wt.%, pref. 0.01-1.0 wt.%.
USE - Used as freshness preservatives for cut flowers and leafy vegetables.
Dwg.0/0
FS CPI
FA AB; GI; DCN
MC CPI: E07-A02H; G04-B

L171 ANSWER 11 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 94-169810 [21] WPIDS
DNC C94-077621
TI Stable compsn. comprising a fat emulsion of fat microparticles - is useful for the delivery of fat-soluble medicinal cpds..
DC B05
IN ISHIKAWA, S; MATSUDA, S; OHASHI, M; SUZUKI, A; TSUJIHARA, K
PA (TANA) TANABE SEIYAKU CO
CYC 6
PI EP 599543 A1 940601 (9421)* EN 11 pp A61K009-107
R: DE FR GB IT
JP 06157294 A 940603 (9427) 7 pp A61K009-107
EP 599543 B1 961002 (9644) EN 12 pp A61K009-107
R: DE FR GB IT
DE 69305144 E 961107 (9650) A61K009-107
US 5650172 A 970722 (9735) 7 pp A61K009-14
ADT EP 599543 A1 EP 93-309195 931118; JP 06157294 A JP 92-310621 921119; EP 599543 B1 EP 93-309195 931118; DE 69305144 E DE 93-605144 931118, EP 93-309195 931118; US 5650172 A Cont of US 93-154434 931119, US 95-479143 950607
FDT DE 69305144 E Based on EP 599543
PRAI JP 92-310621 921119
REP EP 325244; EP 331755; EP 355604
IC ICM A61K009-107; A61K009-14
ICS A61K009-10; A61K009-16; A61K047-12; A61K047-18; A61K047-26
AB EP 599543 A UPAB: 940715
A compsn. for use as a drug carrier comprises a fat emulsion of fat microparticles and also contains a stabilising agent consisting of a fatty acid, a basic amino acid and a saccharide.
The compsn. may also contain a fat-soluble medicinal cpd. The fatty acid pref. has 6-32C and is oleic acid, linoleic acid myristic acid, stearic acid, palmitic acid or behenic acid. The basic amino acid (0.05 to 4 parts. by wt.) is lysine, histidine, ornithine or arginine. The saccharide (2 to 80 parts by wt.) is a mono- or di-saccharide, esp. glucose, fructose, maltose, lactose, sucrose or trehalose. The fat microparticles have a mean dia. of at most 100 nm. The compsn. can be in lyophilised form.
USE/ADVANTAGE - The compsn. is useful for the delivery of fat soluble medicinal cpds. (e.g. antiinflammatory agents (indomethacin), platelet aggregation inhibitors, fibrinolysis-promoting agents, antitumour agents (fluorouridine derivs.) and fat-soluble vitamins (tocopherol acetate)). The small particle size prevents the fat particles being taken up by the liver and spleen and therefore the medicinal cpd. is available systemically. Prior art small particles have not been stable to long term storage. The novel compsn. consists of a stabilised emulsion which can be stored for a long time in a lyophilised form.
Dwg.0/0
FS CPI

FA AB; DCN
MC CPI: B07-A02B; B10-A07; B10-B02E; B10-B02J; B10-C04E

L171 ANSWER 12 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 93-134606 [16] WPIDS
DNN N93-102566 DNC C93-060146
TI Unit-of-use reagent compsn. for immunoassay storable at room temp. - comprise reagent mixt. encapsulated in mouldable carrier matrix which is dried to stabilise reagent coated particle.
DC B04 S03
IN DEVEREAUX, S M
PA (ABBO) ABBOTT LAB
CYC 17
PI WO 9307466 A1 930415 (9316)* EN G01N021-00
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE
W: CA JP
EP 607209 A1 940727 (9429) EN G01N021-00
R: DE ES FR IT
JP 07500417 W 950112 (9511) G01N033-543
EP 607209 A4 970122 (9722) G01N021-00
ADT WO 9307466 A1 WO 92-US7934 920922; EP 607209 A1 EP 92-920645 920922, WO 92-US7934 920922; JP 07500417 W WO 92-US7934 920922, JP 93-506927 920922; EP 607209 A4 EP 92-920645
FDT EP 607209 A1 Based on WO 9307466; JP 07500417 W Based on WO 9307466
PRAI US 91-774688 911011
REP US 3963441; US 3975162; US 5102788; 1.Jnl.Ref ; DE 3928568; EP 140489; EP 141648; JP 63106562; US 4356149
IC ICM G01N021-00; G01N033-543
ICS G01N033-531; G01N033-544
AB WO 9307466 A UPAB: 930924
A unit-of-use reagent compsn. for a specific binding assay comprises (a) at least one capture-reagent-coated particle, in which the capture reagent (I) is a specific binding member, in a amt. sufficient to perform a single binding assay; and (b) a mouldable carrier matrix (II) which is dried, stabilising the (I)-coated particle (II) is reconstituted on contact with a solvent thus exposing the (I)-coated particle for a specific binding reaction.

Prepn. of the compsn. by (i) combining at least one (I)-coated particle with (II); (ii) dispersing an aliquot of the mixt. into a mould cavity; (iii) cooling the mixt to form a unit-of-use reagent compsn.;and (iv) lyophilising the compsn. Pref. (II) is a gelatin, pref. calf or swine skin gelatin, fish gelatin or vegetable gelatin. The compsn. pref. also includes a stabiliser for the indicator reagent, pref. a sugar such as trehalose, dextran, lactose, maltose, xylose, arabitol, xylitol or sucrose.

USE/ADVANTAGE - Compsn. is esp. suited for use in an immunoassay format. Examples are given of to use for detection of Carcinoembryonic antigen (CEA) and human chorionic gonadotrophin (hCG) by enzyme immunoassay. (II) is used to dispense the reagent compsn. in the amt. needed for a single assay. Lyophilisation extends the reagent stabilty and facilitates handling and packaging, as it obviates the need for cold storage. Compsn. can be stored for prolonged periods at room temp. and can be dispensed by a technician without the need for multiple reagent measurements and addns. to the reaction vessel or test device.
0/0
FS CPI EPI
FA AB; DCN
MC CPI: B04-B02C; B04-B02D4; B04-B04A; B04-B04C2; B04-C02D; B11-C07A1; B12-K04A

EPI: S03-E14H4

L171 ANSWER 13 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 93-134602 [16] WPIDS
DNN N93-102562 DNC C93-060142
TI Unit-of-use reagent compsn. for immunoassays, storable at room temp. - comprises reagent mixt. incorporated in porous material encapsulated in carrier matrix which is lyophilisable to stabilise indicator reagent.
DC B04 S03
IN DEVEREAUX, S M; DEVERAUX, S M
PA (ABBO) ABBOTT LAB
CYC 17
PI WO 9307461 A2 930415 (9316)* EN 23 pp G01N000-00
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE
W: CA JP
EP 609265 A1 940810 (9431) EN G01N033-52
R: DE ES FR IT
EP 609265 A4 941221 (9543) G01N000-00
EP 609265 B1 970528 (9726) EN 13 pp G01N033-543
R: DE ES FR IT
DE 69220080 E 970703 (9732) G01N033-543
ES 2103969 T3 971001 (9746) G01N033-543
ADT WO 9307461 A2 WO 92-US7927 920922; EP 609265 A1 EP 92-920799 920922, WO 92-US7927 920922; EP 609265 A4 EP 92-920799 ; EP 609265 B1 EP 92-920799 920922, WO 92-US7927 920922; DE 69220080 E DE 92-620080 920922, EP 92-920799 920922, WO 92-US7927 920922; ES 2103969 T3 EP 92-920799 920922
FDT EP 609265 A1 Based on WO 9307461; EP 609265 B1 Based on WO 9307461; DE 69220080 E Based on EP 609265, Based on WO 9307461; ES 2103969 T3 Based on EP 609265
PRAI US 91-776518 911011
REP No-SR.Pub ; EP 214053; EP 62968; US 3963441; US 3975162; US 5102788
IC ICM G01N000-00; G01N033-52; G01N033-543
ICS G01N033-548
AB WO 9307461 A UPAB: 930924
A unit- of- use reagent compsn. for a specific binding assay comprises (a) porous material (I); (b) indicator reagent (II) comprising a labelled specific binding member in an amt. sufficient to perform a single binding assay; and (c) carrier matrix (III) which is lyophilisable and so stabilises (II). (III) rehydrates on contact with a solvent and exposing or releasing the assay reagent from (I) for a specific binding reaction.

Prepn. of the compsn. is by (i) combining (II) with a (III) soln.; (ii) dispersing an aliquot of the mixt. onto (I); (iii) cooling (I) to form a unit-of-use reagent compsn.; and (iv) lyophilising the compsn. which rehydrates on contact with a solvent, thus exposing (II) for a specific binding reaction.

Pref. (III) is a gelatin, pref. calf skin gelatin, fish gelatin, swine skin gelatin or vegetable gelatin. Compsn. pref. also includes a stabiliser for (II), pref. a sugar e.g, trehalose, dextran, lactose, maltose, xylase, arabitol, xylitol or sucrose.

USE/ADVANTAGE - Esp. for use in an immunoassay formation. Examples are given of its use for detection of carcinoembryonic antigen (eEA) and human chorionic gonadotrophin (hCB) by enzyme immunoassay. (III) is used to dispense the reagent compsn. in the amt. needed for a single assay, Lyophilisation extends the reagent stability and facilitates handling and packaging, as it obviates the need for cold storage. Compsn. can be stored for prolonged periods at room temp. and can be dispensed by a technician without the need for multiple reagent measurements and addns. to the reaction vessel or test device.

0/0
FS CPI EPI
FA AB; DCN
MC CPI: B04-B02C2; B04-B02D4; B04-B04A; B04-B04C2; B04-C02D; B11-C07B1; B12-K04A
EPI: S03-E14H; S03-E14H4

L171 ANSWER 14 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 92-007197 [01] WPIDS
CR 94-135190 [16]
DNC C92-003071
TI Self-emulsifying compsns. - comprises oleaginous material and water-soluble matrix.
DC A96 A97 B07 D13 D21
IN SHIVELY, M L
PA (RESE) RESEARCH CORP TECHNOLOGIES INC
CYC 19
PI WO 9118613 A 911212 (9201)*
RW: AT BE CH DE DK ES FR GB GR IT LU NL SE
W: AU CA JP US
AU 9182106 A 911231 (9215)
EP 489898 A1 920617 (9225) EN 111 pp A61K031-74
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
AU 648573 B 940428 (9422) A61K009-113
JP 06165931 A 940614 (9428)# 32 pp B01J013-00
JP 06182189 A 940705 (9431)# 32 pp B01J013-00
JP 07501259 W 950209 (9515) B01J013-00
IE 62921 B 950308 (9520) A61K031-74
EP 489898 A4 930609 (9526)
ADT EP 489898 A1 EP 91-912696 910531, WO 91-US3864 910531; AU 648573 B AU 91-82106 910531; JP 06165931 A JP 92-82388 920403; JP 06182189 A JP 92-81184 920402; JP 07501259 W JP 91-511745 910531, WO 91-US3864 910531; IE 62921 B IE 91-1901 910604; EP 489898 A4 EP 91-912696
FDT EP 489898 A1 Based on WO 9118613; AU 648573 B Previous Publ. AU 9182106, Based on WO 9118613; JP 07501259 W Based on WO 9118613
PRAI US 90-531847 900601; JP 92-82388 920403; JP 92-81184 920402
REP 1.Jnl.Ref ; US 2861920; US 3136692; US 3145146; US 3148127; US 4199564; US 4963385; WO 9006969; No-Citns.
IC ICM A61K009-113; A61K031-74; B01J013-00
ICS A23D007-00; A23D009-04; A23L001-035; A61K007-00; A61K009-107; A61K047-26; A61K047-32; A61K047-36; B01F017-00
AB WO 9118613 A UPAB: 950609
Compsns. described as self-emulisfying glasses comprise a mixt. of an oleaginous material (I) and a non-surface-active water-soluble matrix cpd. (II), the compsns. being capable of forming stable emulsions on contact with aq. media. The compsns. are further defined as being 10-60% microcrystalline. In other embodiments, they are further defined by the nature of (II).

(I) is (a) a mineral, **vegetable**, animal or fish oil or perfluorodecalin, or (b) a w/o emulsion. (II) is sucrose, **trehalose**, fructose, a cyclamate, saccharin, maltodextrin, polyvinylpyrrolidone or a cellulose deriv. The (II):(I) wt. ratio is 2-20:1.

The compsns. are prepd. by mixing (I) and (II) with sufficient solvent (esp. H2O) to dissolve (II), and then removing the solvent, pref. by evapn. in vacuo.

USE/ADVANTAGE - The compsns. may be used as carriers for water-or oil-soluble pharmaceuticals, blood substits., food additives or cosmetic components. The compsns. contain no prim. surfactant thus avoiding

possible toxic, irritant or allergic effects. @(111pp Dwg.No.0/5)@
0/5@
FS CPI
FA AB; DCN
MC CPI: A12-V01; A12-V02; A12-V04; A12-W09; B04-B01C; B04-C02A; B04-C02B; B04-C03A; B06-F01; B07-A02; B10-A07; B10-A08; B12-J01; B12-L02; D03-H01; D08-B; D09-C01

L171 ANSWER 15 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 89-150625 [20] WPIDS
DNC C89-066681
TI Sustained-release formulation of water-soluble drug - contains an oily medium and a surfactant with HLB below 5.
DC A96 B07
IN IWATA, M; KOJIMA, K; TANAKA, T
PA (DAIN) DAINIPPON PHARM CO LTD
CYC 13
PI WO 8903671 A 890505 (8920)* JA 22 pp
RW: AT BE CH DE FR GB IT LU NL SE
W: JP KR US
ADT WO 8903671 A WO 88-JP1090 881027
PRAI JP 87-274345 871029; JP 88-227329 880909
REP 1.Jnl.Ref ; AT 344327; CA 1050426; DE 2641819; DK 431876; FR 2371926; GB 1563311; JP 48088220; JP 52044222; JP 52087218; JP 55081812; JP 61050923; JP 62032887
IC A61K009-10
AB WO 8903671 A UPAB: 930923
Formulation contains a water-soluble drug together with a surfactant (hydrophilic/lipophilic balance, HLB, below 5, pref. below 4) and an oily medium. It may also contain a stabiliser and a release control agent. Pref. the surfactant is a sorbitan fatty acid ester such as sorbitan sesquioleate; the oily medium is a **vegetable** oil (such as soybean oil) or tocopherol acetate; the stabiliser is gelatin, albumin, dextran or **trehalose**; the release control agent is egg yolk lecithin, cholesterol or polyoxyethylene-hardened corn oil.
The drug is finely powdered, and mixed with a suspension of the surfactant in the oily medium.
USE/ADVANTAGE - Use of the formulation produces a steady concentration of the drug in blood or lymph over a long period. It is suitable for drugs such as tumour necrosis factor, human interleukin 1-alpha, colony stimulating factor and mitomycin C.
0/2
FS CPI
FA AB; DCN
MC CPI: A12-V01; B02-M; B03-H; B04-B01C1; B04-B04J; B04-C01G; B07-A02; B12-M10A

L171 ANSWER 16 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 89-001829 [01] WPIDS
DNC C89-000683
TI Dehydrating food or beverage at raised temp. - with addn. of **trehalose**, to prevent denaturation of protein.
DC D13
IN ROSER, B J
PA (QUAD-N) QUADRANT BIORESOURCES LTD; (QUAD-N) QUADRANT BIORES LTD
CYC 27
PI GB 2206273 A 890105 (8901)* 17 pp
WO 8900012 A 890112 (8905) EN

W: AU DK FI HU JP NO SU US
ZA 8804617 A 890329 (8919)
AU 8819882 A 890130 (8920)
NO 8900821 A 890529 (8927)
DK 8900923 A 890227 (8931)
FI 8900935 A 890227 (8940)
CN 1030343 A 890118 (8950)
HU 50603 T 900328 (9019)
JP 02503864 W 901115 (9101)
NO 172964 B 930628 (9101)
GB 2206273 B 910327 (9113)
US 5026566 A 910625 (9128)
IL 86903 A 911212 (9203)
EP 297887 B 920422 (9217) EN 5 pp
R: AT BE CH DE ES FR GR IT LI LU NL SE
DE 3870332 G 920527 (9223) A23L001-30
CS 8804627 A2 920219 (9237) A23L002-08
ES 2032968 T3 930301 (9321) A23L001-30
JP 05081232 B 931111 (9348) 5 pp A23L003-42
SU 1816199 A3 930515 (9430) 5 pp A23L003-42
CA 1332033 C 940920 (9438) A23L001-30
FI 94826 B 950731 (9536)# A23L003-42

ADT GB 2206273 A GB 88-15472 880629; WO 8900012 A WO 88-GB511 880629; ZA 8804617 A ZA 88-4617 880628; JP 02503864 W JP 88-505533 880629; NO 172964 B WO 88-GB511 880629; NO 89-821 890227; US 5026566 A US 89-327187 890501; EP 297887 B EP 88-305979 880629; DE 3870332 G DE 88-3870332 880629, EP 88-305979 880629; CS 8804627 A2 CS 88-4627 880629; ES 2032968 T3 EP 88-305979 880629; JP 05081232 B JP 88-505533 880629, WO 88-GB511 880629; SU 1816199 A3 WO 88-GB511 880629, SU 89-4613801 890227; CA 1332033 C CA 88-570638 880628; FI 94826 B WO 88-GB511 880629, FI 89-935 890227

FDT NO 172964 B Previous Publ. NO 8900821; DE 3870332 G Based on EP 297887; ES 2032968 T3 Based on EP 297887; JP 05081232 B Based on JP 02503864, Based on WO 8900012; FI 94826 B Previous Publ. FI 8900935

PRAI GB 87-15238 870629; GB 88-15472 880629; FI 89-935 890227

REP EP 211257; US 3162540; US 3170804; WO 8601103

IC ICM A23L001-30; A23L002-08; A23L003-42
ICS A23B004-03; A23B005-02; A23B007-02; A23B007-022; A23C009-18; A23D000-00; A23F005-40; A23L003-40

ICA A23C001-16; A23L001-32; A23L002-16

AB GB 2206273 A UPAB: 940120
When drying a food or beverage contg. water, at above ambient temp., **trehalose** is incorporated into the food or beverage.

The concn. of **trehalose** is pref. 0.5-15 wt.%. If the food is proteinaceous, the ratio by wt. of **trehalose**:protein is 1:2.5-15 (1:2.5-7.5).

USE/ADVANTAGE - Protein in the food or beverage is protected from denaturation, and the reconstituted food more closely resembles the original. The speed of re-hydration is greater. The food or beverage comprises milk or egg, or is a juice, juice concentrate, paste or puree of fruit or **vegetable** (claimed).

Dwg.0/0

FS CPI

FA AB

MC CPI: D03-H01L

L171 ANSWER 17 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD

AN 87-293728 [42] WPIDS

CR 89-115837 [16]

DNC C87-124678

TI Immunological adjuvant enhancing immune response to vaccine antigens - comprises lipid emulsion contg. metabolisable oil, low mol. wt. poly ol and lecithin, and refined detoxified bacterial adjuvant.
DC B04 C03 D16
IN CANTRELL, J L
PA (RIBI-N) RIBI IMMUNOCHEM RES INC; (RIBI-N) RIBI IMMUNOCHEM RES
CYC 12
PI GB 2189141 A 871021 (8742)* 6 pp
DE 3712767 A 871022 (8743)
AU 8771566 A 871022 (8749)
FR 2596990 A 871016 (8749)
FR 2598622 A 871120 (8803)
JP 63010736 A 880118 (8808)
US 4806352 A 890221 (8910) 5 pp
ES 2005166 A 890301 (8939)
ES 2005167 A 890301 (8939)
GB 2189141 B 900725 (9030)
DE 3712767 C 910627 (9126)
IT 1205819 B 890331 (9129)
JP 04001728 B 920114 (9206)
CA 1300503 C 920512 (9225) A61K039-39
ADT GB 2189141 A GB 87-9023 870415; DE 3712767 A DE 87-3712767 870415; FR 2596990 A FR 86-5252 860415; FR 2598622 A FR 87-5271 870414; JP 63010736 A JP 87-92947 870415; US 4806352 A US 86-852120 860415; ES 2005166 A ES 87-1112 870415; ES 2005167 A ES 87-1113 870415; JP 04001728 B JP 87-92547 870415; CA 1300503 C CA 87-534735 870415
PRAI US 86-852120 860415; US 87-102909 870930
IC ICM A61K039-39
ICS A61K009-10; A61K035-74; A61K045-05; C12N000-00
AB GB 2189141 A UPAB: 950126
Immunological adjustment comprises: (1) a lipid emulsion system contg. (a) a metabdisable oil, (b) a low mol. wt. polyol and (c) lecithin; and (2) a refined, detoxified bacterial adjustment. Also claimed is an adjuvant system contg. an antigen and the immunological adjuvant.
USE/ADVANTAGE - The adjuvant is useful in vaccines and greatly enhances the immune response against a wide variety of natural and synthetic antigens, including viral, bacterial, fungal and protozoal antigens. The antigens may be genetically engineered proteins or in vitro synthesised peptides, e.g. related to viral components; natural proteins such as bacterial toxoids; capsule polysaccharides; inactivated whole bacteria, viruses, fungi, etc. The metabolisable emulsion does not induce a granulomatous response and is less expensive than prior W/O emulsions.
Dwg./0
Dwg./0
FS CPI
FA AB; DCN
MC CPI: B02-V02; B04-B01B; B04-B01C1; B04-B01C3; B04-B02B1; B04-B04C1; B05-B01P; B12-A01; B12-A02C; B12-A06; B12-B01; C02-V02; C04-B01B; C04-B01C1; C04-B01C3; C04-B02B1; C04-B04C1; C05-B01P; C12-A01; C12-A02C; C12-A06; C12-B01; D05-H07

L171 ANSWER 18 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 87-291642 [41] WPIDS
DNC C87-123864
TI Compsn. for controlling scarabid larvae contg. bacterial spores ÷ of milky disease pathogen, free of sporangia and prepd. by in vivo culture.
DC C03 D16
IN ELLIS, B J; METHA, R; OBENCHAIN, F D
PA (REUT-N) REUTER LABS INC

CYC 20
PI WO 8705928 A 871008 (8741)* EN 40 pp
RW: AT BE CH DE FR GB IT LU NL SE
W: AU JP KR
AU 8772067 A 871020 (8803)
EP 262195 A 880406 (8814) EN
R: AT BE CH DE FR GB IT LI LU NL SE
PT 84552 A 880303 (8814)
JP 63502961 W 881102 (8850)
CN 87102246 A 880210 (8913)
US 4824671 A 890425 (8919) 13 pp
ES 2004704 A 890201 (8937)
CA 1283074 C 910416 (9120)
IL 81857 A 910610 (9130)
ADT WO 8705928 A WO 87-700574 870312; EP 262195 A EP 87-902272 870312; JP 63502961 W JP 87-502146 870312; US 4824671 A US 86-843163 860324; ES 2004704 A ES 87-816 870324
PRAI US 86-843163 860324
REP 4.Jnl.Ref ; US 3503851; US 3790665; US 3950225; US 4626508; US 4661351; 3.Jnl.Ref ; GB 1134678; SSR880928 ; US 3308038; US 3616250
IC A01N063-00; A61K039-07; C12N001-20; C12N003-00; C12N011-02; C12R003-00
AB WO 8705928 A UPAB: 930922
Insecticidal compsn. for controlling Scarabacidae comprises (1) as active ingredient sporangium-free spores of the pathogens which cause milky disease and (2) a carrier or diluent. Also new is in vitro prodn. of milky disease spores (esp. of Bacillus popilliae) comprises growing **vegetative** cells on a liq. medium contg. 0.1-2% soluble starch; 0.1-0.2% **trehalose**; 0.5-1.5% yeast extract; 0.1-0.6% K2HPO4 and 0-0.3% CaCO3, under aerobic conditions at controlled pH. At the end of the **vegetative** phase, 5-250 mg/l of MnSO4 is added as sporulation adjuvant, and inoculation is continued until sporulation occurs.
USE/ADVANTAGE - The compsn. is used in fields, orchards, pastures, gardens, etc. to control larvae of scarabid beetles. This in vitro method produces large amts. of the spores simply, and provides a high rate (80% or more) of sporulation.
0/3
FS CPI
FA AB
MC CPI: C04-B02B1; C11-A; C12-N02; D05-H01; D05-H04

L171 ANSWER 19 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 87-032901 [05] WPIDS
DNC C87-013868
TI Carcinostatic drug compsn. - comprises emulsion of alpha, alpha-**trehalose**-di fatty acid ester, **vegetable** oil, lecithin or surfactant, and water.
DC A96 B03 B05
PA (SSSE) SS PHARMACEUTICAL KK
CYC 1
PI JP 61289038 A 861219 (8705)* 3 pp
ADT JP 61289038 A JP 85-129321 850614
PRAI JP 85-129321 850614
IC A61K009-10; A61K031-70; C07H013-06
AB JP61289038 A UPAB: 930922
A carcinostatic drug with emulsion type, comprising (A) an active amt. of alpha,alpha-**trehalose**-6, 6'-difatty acid ester of formula (I) and an emulsion base material comprising (a) 3-50 wt.% of a **vegetable** oil, (b) 1-50 wt.% of lecithin or a surfactant based on (a), and (c) water. (In (I), R is 1-21C alkyl). The additive amount of

trehalose is 0.1-5 wt.%. (a) is olive oil, sesami oil, soybean oil, camellia oil, rape seed oil, corn oil, peanut oil, cotton seed oil, etc., and sesami oil is preferably used. Lecithin includes soybean lecithin or vitellus lecithin. The surfactant includes polyoxyethylene sorbitan fatty acid ester, hardened castor oil polyoxyethylene derivatives, sorbitan fatty acid ester, etc.. The carcinostatic substance is formed into an injection or a liquid solution through oral route, with dose as being, as trehalose difatty acid ester, 0.1-2000mg kg/day or 0.005-1000 mg/kg/day for non oral route.

USE/ADVANTAGE - Due to the emulsification of trehalose with the use of the emulsifier, stability of trehalose is improved better.

0/0

FS CPI
FA AB
MC CPI: A12-V01; B04-B01B; B04-B01C1; B04-B03C; B04-C03C; B05-B01P; B07-A02; B12-G07; B12-M03; B12-M09

L171 ANSWER 20 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 81-77750D [42] WPIDS
TI Prepn. of leavened dough mixts. - using mixt. of candida lusitaniae and saccharomyces delbrueckii as leavening yeasts.
DC D16
PA (BEAF) BEATRICE FOODS CO
CYC 2
PI US 4292330 A 810929 (8142)* 4 pp
CA 1146404 A 830517 (8322)
PRAI US 79-58619 790718
IC A21D002-00; A21D008-04
AB US 4292330 A UPAB: 930915
The known prepn. of a leavened dough in which: (a) a dough is formed from a cereal, shortening (I), leavening yeasts (II), and a yeast growth source; and (b) the dough is fermented and leavened is improved by using rapid flavour producing yeasts (III) (mixt. of Candida lusitaniae and Saccharomyces delbrueckii) as (II).

Use of (III) as the leavening yeasts affords higher levels of flavour and aroma in shortened fermentation times, or increased levels of flavour and aroma in normal fermentation times.

Cereal is wheat, oats, rice, barley, corn or rye, etc. (I) is an animal or vegetable oil or fat. Dough may also contain all the conventional ingredients such as salt, malt, milk solids, flavouring agents, etc. Yeast growth source is not sucrose but galactose, trehalose, etc. pref. dextrose and amt. used is 0.1-1.5% by wt. of cereal. Wt. ratio (II): baker's yeast if used is 80-20:20-80 pref. 75-50:25-50, esp. 65:35. Amt. of yeast (total) used is 0.1-0.5% by wt. of cereal. Finished dough is baked at 300-500 deg. pref, ca. 400 deg. F.

FS CPI
FA AB
MC CPI: D01-B02

L171 ANSWER 21 OF 21 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 76-89578X [48] WPIDS
TI Detergent compsn. for foods - contg. a sucrose fatty acid ester, protein and peptide.
DC A97 D25
PA (DAII) DAIICHI KOGYO KK
CYC 1
PI JP 51116806 A 761014 (7648)*
PRAI JP 75-42506 750407

IC C11D001-66; C11D003-37; C11D010-02
AB JP51116806 A UPAB: 930901
Sucrose fatty acid water system liq. detergent compsn. for foods comprises (a) a sucrose fatty acid ester (which consist of (un)satd. fatty acids of 8-20C; the content of monoester is pref. 40-80E%), (b) protein (pref. soluble animal or **vegetable** protein), and (c) peptide (animal or **vegetable** protein hydrolysate of <10,000 mol. wt.) and its salt with sodium, potassium, triethanolamine, etc. as essential components, and further adding a suitable solvent (alcohol such as ethanol, propylene glycol or glycerin or water), a soluble stabiliser (saccharide such as sucrose, glucose, sorbitol, dextrin, raffinose, **trehalose**, etc.) preserving agent, perfume, colouring agent, etc. to it. The washing power and foaming power of sucrose fatty acid ester can be further improved. Also touch and mild feeling to skin can be improved.
FS CPI
FA AB
MC CPI: A03-C01; A12-W09; A12-W12; D11-A03; D11-B07; D11-D01